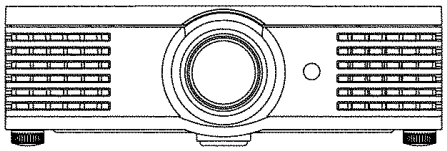
ORDER NO. VED0810389C0
D10

Service Manual

LCD Projector

PT-AE3000U
PT-AE3000E



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The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service manual.

Specifications

Power supply:
100 V - 240 V AC, 50 Hz / 60 Hz
Power consumption:
Less than 240W
[During standby (when fan is stopped): 0.08 W]
Amps:
3.0 A - 1.6 A
LCD panel:
Panel size (diagonal): 0.74 type (17.78 mm)
Aspect ratio: 16:9
Display method: 3 transparent LCD panels (RGB)
Drive method: Active matrix method
Pixels: 2 073 600 (1 980 × 1 080) × 3 panels
Lens:
Motorized zoom (2x) / Motorized focus
F 1.9 - 3.2, f 22.4 mm - 44.8 mm
Lamp:
UHM lamp (165 W)
Luminosity:
1 600 lm
Scanning frequency (for RGB signals):
Horizontal scanning frequency: 30 kHz - 70 kHz
Vertical scanning frequency: 50 Hz - 87 Hz
Dot clock frequency: 150 MHz or less
COMPONENT (YP_BP_R) signals:
525i (480i), 525p (480p), 625i (576i), 625p (576p),
750 (720)/50p, 750 (720)/60p, 1 125 (1 080)/50i,
1 125 (1 080)/60i, 1 125 (1 080)/50p,
1 125 (1 080)/60p, 1 125 (1 080)/24p,
Color system:
7 (NTSC / NTSC 4.43 / PAL / PAL-M / PAL-N / PAL60/ SECAM)
Projection size:
1 016 mm - 5 080 mm
Throw distance:
1.2 m - 12 m
Screen aspect ratio:
16:9
Installation:
FRONT/DESK, FRONT/CEILING, REAR/DESK, REAR/CEILING (Menu selection method)
Terminals:
S-VIDEO IN: Single-line, Mini DIN 4-pin
Y: 1.0 V [p-p], C: 0.286 V [p-p], 75 Ω,
VIDEO IN: Single-line, RCA pin jack
1.0 V [p-p], 75 Ω
COMPUTER IN:
Single-line, D-sub HD 15-pin (female)
R.G.B: 0.7V [p-p], 75Ω
G.SYNC: 1.0 V [p-p], 75Ω
HD/SYNC: TTL high impedance, automatic positive/negative polarity compatible
VD: TTL high impedance, automatic positive/negative polarity compatible
COMPONENT IN :
Y, P_B/C_B, P_R/C_R : Dual-line, RCA pin jack × 3
Y: 1.0 V [p-p] (Including sync), 75Ω
P_B / C_B, (P_R / C_R): 0.7 V [p-p], 75Ω
HDMI IN :
Triple-line, 19-pin HDMI connector (HDCP compliant)
SERIAL: D-sub 9-pin RS-232C compatible
Cabinet:
Molded plastic (PC+ABS)
Dimensions:
Width: 460 mm
Height: 130 mm
Length: 300 mm
Weight:
Approx. 7.3 kg
Operating environment:
Temperature: 0° C - 40° C
(When the "HIGH ALTITUDE MODE" is set to "ON": 0° C - 35° C)
Humidity: 20 % - 80 % (no condensation)
Certifications:
PT-AE3000U: UL60950-1, C-UL, FCC Class B, ICES-003
PT-AE3000E: EN60950-1, EN55022, EN61000-3-2, EN61000-3-3, EN55024

＜Remote control unit＞
Power supply:
3 V DC (AA battery × 2)
Operating range:
Approx. 7 m
(when operated directly in front of signal receptor)
Weigh:
125 g (including batteries)
Dimensions:
Width: 48 mm
Height: 28.35 mm
(Not including surface projection parts)
Length: 138 mm
Accessories:

Remote control unit (N2QAYB000316):		1
AA batteries for remote control unit (× 2):		1
Power cord: (3 m)	**PT-AE3000U:** K2CG3FH00017	1
	PT-AE3000E: K2CT3FH00003 (U.K)	1
	: K2CM3FH00001 (continental)	1
Lens cover (TXFKK01VKF5):		1
Safety cable (TTRA0141):		1
Power cord secure lock:		
	PT-AE3000U(TTRA0182):	1
	PT-AE3000E(TTRA0183):	1

Options:

Ceiling bracket:	ET-PKE2000
Ceiling bracket: (for low ceilings)	ET-PKE1000S
Cable cover:	ET-PCE2000

• Specifications are subject to change without notice.
• Weight and dimensions shown are approximate.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Trademark Acknowledgements

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- S-VGA is a registered trademark of the Video Electronics Standards Association.
- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- The font used in the on-screen displays is a Ricoh bitmap font, which is manufactured and sold by Ricoh Company, Ltd.

All other trademarks are the property of the various trademark owners.

Precaution

If using this projector at high altitudes (above 1 400 m), set the HIGH ALTITUDE MODE to ON. (Refer to "OPTION menu" in Operating Instructions.)
Failure to observe this may cause malfunctions.
Never use this projector at an altitude of 2 700 m or higher.
Using this projector at high altitudes, consult your dealer or Authorized Service Center about precautions.

Note

This projector has the demonstration mode that aims at the effect of the display in the shop. When Panasonic logo and the model name (PT-AE3000*) are displayed, and they go round the four corners of the screen while slowly blinking, or when the screen is divided right and left (or upper and lower) by white line, and the characters of "PANASONIC PROJECTOR AE3000" slowly moves horizontally (or vertically), the projector is in the demonstration mode. If it is in the demonstration mode, cancel it before returning the customer the projector by the following methods.
Press "RETURN" button on the main unit or remote control unit 3 seconds or longer.

About lead free solder (PbF)

This projector is using the P.C.Board which applies lead free solder. Use lead free solder in servicing from the standpoint of antipollution for the global environment.
Notes:

- Lead free solder: Sn-Ag-Cu (tin, silver and copper) has a higher melting point (approx. 217°C) than standard solder. Typically, the melting point is 30°C to 40°C higher. When servicing, use a high temperature soldering iron with temperature limitation function and set it to 370±10°C.
- Be precautions about lead free solder: Sn-Ag-Cu (tin, silver and copper) will tend to splash when heated too high (approx. 600°C or higher).
- Use lead free solder for the P.C.Board (specified on it as "PbF") which uses lead free solder.
- After soldering to double layered P.C.Boards, check the component side for excess solder which may flow onto the opposite side.

About the identification of the lead free solder P.C.Board
For the P.C.Board which applies lead free solder, the symbol as shown in the figure below is printed or stamped on the surface or the back of P.C.Board.

or PbF

For US

IMPORTANT SAFETY NOTICE

There are special parts used in Panasonic LCD Projectors which are important for safety. These parts are shaded on the schematic diagram. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of PANASONIC BROADCAST & TELEVISION SYSTEMS COMPANY.

WARNING:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Any unauthorized changes or modifications to this equipment will void the users authority to operate.

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1 Safety Precautions

1.1. General Guidelines

- For continued safety, no modification of any circuit must be attempted.
- Unplug the power cord from the power outlet before disassembling this projector.
- Use correctly the supplied power cord and must ground it.
- It is advisable to use an isolation transformer in the AC power line before the service.
- Be careful not to touch the rotation part (cooling fan, etc.) of this projector when you service with the upper case removed and the power supply turned ON.
- Observe the original lead dress during the service. If a short circuit is found, replace all the parts overheated or damaged by the short circuit.
- After the service, all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations must be properly installed.
- After the service, check the leakage current to prevent the customer from getting an electric shock.

1.2. Leakage Current Check

1. Prepare the measuring circuit as shown in Fig.1.

   Be sure to use a voltmeter having the performance described in Table 1.

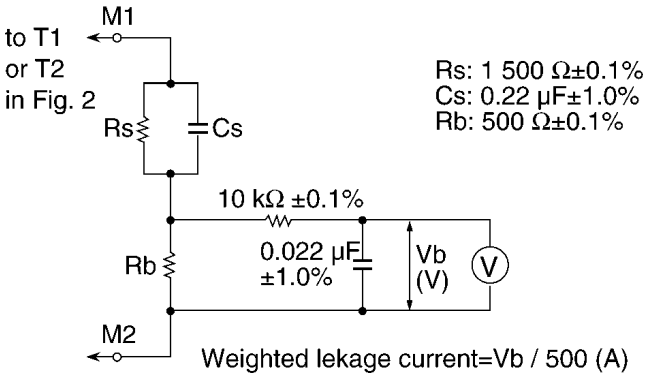


Fig. 1

	Performance
Voltmeter (rms reading)	Accuracy: ≤ 2% Input resistance: ≥ 1 MΩ Input capacitance: ≤ 200 pF Frequency range: 15 Hz to 1 MHz

Table 1

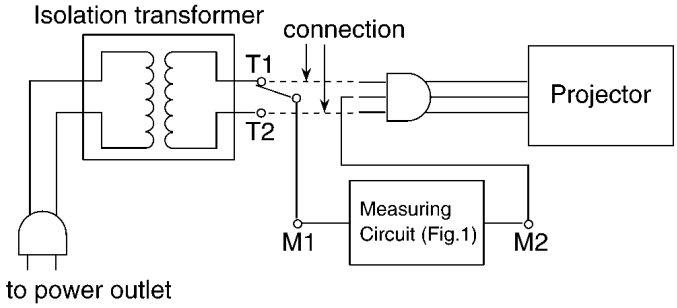


Fig. 2

2. Assemble the circuit as shown in Fig. 2. Plug the power cord in a power outlet.
3. Connect M1 to T1 according to Fig. 2 and measure the voltage.
4. Change the connection of M1 from T1 to T2 and measure the voltage again.
5. The voltmeter must read 0.375 V or lower in both of steps 3 and 4. This means that the current must be 0.75 mA or less.
6. If the reading is out of the above standard, the projector must be repaired and rechecked before returning to the customer because of a possibility of an electric shock.

1.3. UV Precaution and UHM Lamp Precautions

- Be sure to unplug the power cord from the power outlet when replacing the lamp.
- Because the lamp reaches a very high temperature during its operation, wait until it cools completely when replacing the Lamp Unit.
- The lamp emits small amounts of UV-radiation, avoid direct-eye contact with the light.
- The lamp unit has high internal pressure. If improperly handled, explosion might result.
- Because the high pressure lamp involves a risk of failure, never touch the lamp wire lead during the service. (See Fig. 3)

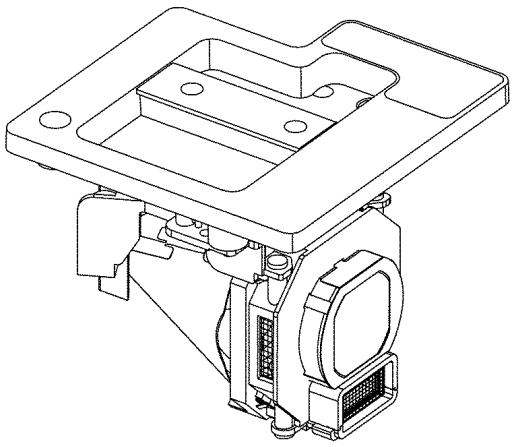


Fig.3

2 Ext Option

This projector has EXT OPTION in addition to standard on-screen menus.

・There are SELF CHECK and FLICKER ADJUST for service, etc.

2.1. Procedure to enter EXT OPTION

1. When the projector is power ON, press "POWER" button on the main unit or remote control unit to display "POWER OFF" confirmation screen.
2. Press the right-arrow " ▶ " button to select "CANCEL" in the "POWER OFF" confirmation screen.
3. On the main unit or remote control unit, press the buttons in order of up-arrow " ▲ ", down-arrow " ▼ ", up-arrow " ▲ ", down-arrow " ▼ " and "ENTER".

   (When the "ENTER" button is pressed, "EXT OPTION" menu is displayed.)

2.2. EXT OPTION Menu and Functions

EXT OPTION

FAN FULLMODE	OFF / ON
AUTO SETUP	NORMAL / SPECIAL
SELF CHECK	
FLICKER ADJUST	
OS	OFF / ON
HPLL	OFF / ON

・FAN FULLMODE

Setting the cooling fan motor rotation speed

– Switching ON "FAN FULLMODE", the rotation level of the fan becomes high-speed rotation (fixed). Moreover, when "FAN FULLMODE" is ON, changing "HIGH ALTITUDE MODE" in OPTION menu becomes impossible (setting FAN FULLMODE is given priority more than HIGH ALTITUDE MODE).

・AUTO SETUP

Setting AUTO SETUP mode

– NORMAL: To set the normal mode (the dot clock is adjusted strictly)

– SPECIAL: To set the special mode (the dot clock is adjusted roughly)

* Do not change the initial setting (NORMAL).

・SELF CHECK

To enter the self-check mode

・FLICKER ADJ

To enter the flicker adjustment mode

・OS

Setting of the reflection noise reduction filter when a component signal (except 525i, 625i, 1125/60p and 1125/50p) is inputted. Usually set it to ON.

* Do not change the initial setting (ON).

・HPLL

When non-standard signal of VIDEO/S-VIDEO is inputted (VTR, VHD, etc.), horizontal synchronization might be disordered according to connected equipment. In this case, set HPLL to OFF.

2.3. Canceling EXT OPTION

Press "MENU" button on the main unit or remote control unit.

3 Self-Check Mode

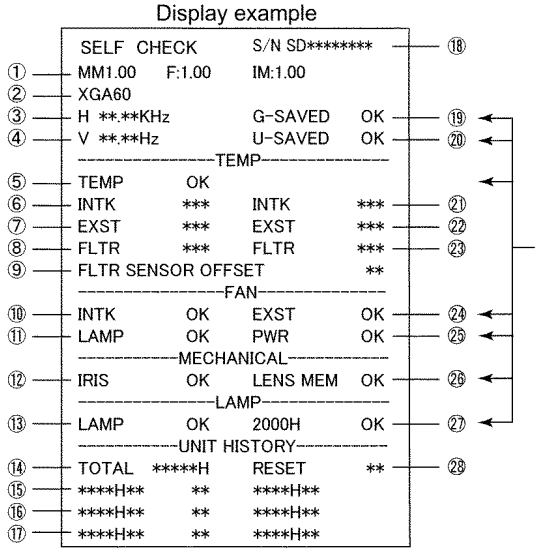
This mode is used to narrow down the location of the failure.

3.1. Procedure to enter the self-check mode

Select "SELF CHECK" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

3.2. Self Check Display and Contents

Display example



* This display is an example and the display contents depend on the input signal mode.

- The result of items "G SAVED" and "U SAVED", "OK" is displayed for OK and "NG" is displayed for NG.
- The result of items "TEMP", "FAN" (INTK, LAMP, EXST, PWR) "IRIS", "LAMP MEM", "LAMP" (LAMP, 2000H), the OK display becomes red characters when shutting down because abnormality happened last time.

	Display Contents	Remarks
①	Microcomputer / FPGA / IRIS Control Microprocessor Software Version Display *1	Microcomputer (IC1010), FPGA (IC1032) and IRIS control microprocessor (IC1143) software versions are shown from the left.
②	Signal Name	Different display according to the input signal
③	Horizontal Signal Frequency	RGB or YP_BP_R (YC_BC_R) signal reception only
④	Vertical Signal Frequency	RGB or YP_BP_R (YC_BC_R) signal reception only
⑤	Temperature Abnormality Check	Cause of Lamp Malfunction
⑥	Thermosensor 2 A/D conversion value (0 - 255) *2	Current temperature around the air intake port
⑦	Thermosensor 1 A/D conversion value (0 - 255) *2	Current temperature around the air exhaust port
⑧	Thermosensor 4 A/D conversion value (0 - 255) *2	Current temperature around the LCD block
⑨	Thermosensor 4 difference correction value	Gap from the reference value of thermosensor 4
⑩	FAN3 Error Information	FAN3 (Intake fan) Error
⑪	FAN4 Error Information	FAN4 (PBS fan) Error
⑫	Iris Abnormality Check	It is distinguished whether the iris operates normally.
⑬	Lamp Abnormality Check	Cause of Lamp Malfunction
⑭	Total Usage Time	Projector Cumulative Usage Time
⑮	Lamp ON - Cumulative Usage Time / Frequency / Cumulative Usage Time	Current: Cumulative Usage Time (actual time), ON Frequency and Cumulative Usage Time (conversion time for 150 W) of the lamp are shown from the left.
⑯		Second
⑰		First
⑱	Product Serial Number	Displays the serial number of this projector.
⑲	Gamma Correction Data Check	It is distinguished whether gamma data is stored in the flash ROM.
⑳	Color Unevenness Correction Data Check	It is distinguished whether color unevenness correction data is stored in the flash ROM.
㉑	Thermosensor 2 A/D conversion value (0 - 255) *2	Temperature around the air intake port when the last thermal shutdown occurs
㉒	Thermosensor 1 A/D conversion value (0 - 255) *2	Temperature around the air exhaust port when the last thermal shutdown occurs
㉓	Thermosensor 4 A/D conversion value (0 - 255) *2	Temperature around the LCD block when the last thermal shutdown occurs
㉔	FAN2 Error Information	FAN2 (Exhaust fan) Error
㉕	FAN1 Error Information	FAN1 (Power fan) Error
㉖	Lens Memory Abnormality Check	It is distinguished whether the lens memory operates normally.
㉗	Lamp - Judgment for Cumulative Usage more than 2 000 h *3	Judgment for Replacement Time of Lamp
㉘	Lamp - Reset Frequency of Cumulative Usage Time	Reset Frequency

*1 FPGA (Field Programmable Gate Array)
LSI that is rewritable quickly while inspecting the program by system designer. (This will be able to reduce the development time.)

*2 When detected abnormal temperature around the air intake port / air exhaust port / LCD block, TEMP indicator turned on. If arriving at the critical temperature, the power supply will shut down automatically (thermal shutdown) and the indicator will flash.

*3 Warning of the lamp cumulative usage time and shutdown use the conversion time for 150 W.

3.3. Canceling the self-check mode

Press "MENU" button on the main unit or remote control unit.

4 Flicker Adjustment Mode

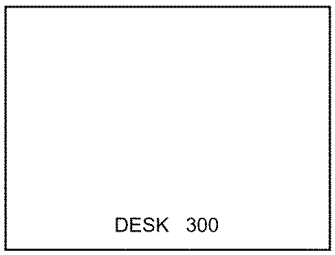
If replacing the optical parts (LCD Panel / LCD block) or A-P.C.Board of this projector, enter the flicker adjustment mode and minimize the flicker.

4.1. Procedure to enter the adjustment mode

Select "FLICKER ADJUST" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

Note:

"DESK setting (red)" is displayed when entering the adjustment mode.



Adjustment Display when DESK setting

4.2. Adjustment Display and Contents

- Setting value is increased and decreased with the right-arrow " ▶ " and left-arrow " ◀ " buttons.
  " ◀ ": Decrease, " ▶ ": Increase
  – Adjust the setting value to minimize the flicker on the screen.
  – Execute the adjustment by 6 patterns below.
- The pattern (adjustment display) is switched with the up-arrow " ▲ " and down-arrow " ▼ " buttons.
  " ▲ ": Forward direction, " ▼ ": Reverse direction
  – There are 6 patterns of "DESK setting (red)", "DESK setting (blue)", "DESK setting (green)", "CEILING setting (red)", "CEILING setting (blue)" and "CEILING setting (green)".
  – The setting value is saved into this projector when the pattern is switched.

4.3. Canceling the flicker adjustment mode

Press "MENU" button on the main unit or remote control unit.

Note:

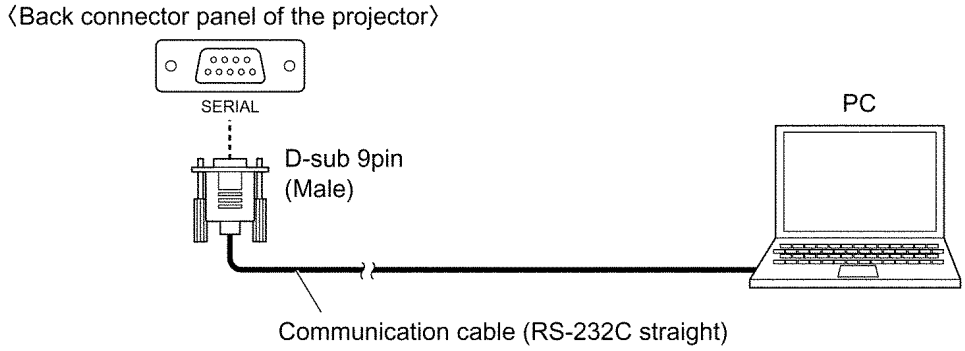
When "MENU" button is pressed, the setting value at that time is saved into this projector and the adjustment mode is canceled.

5 Using the SERIAL Connector

The serial connector which is on the back connector panel of the projector conforms to RS-232C standard. This projector can be controlled by a PC which is connected as shown in "5.1. Connection".

For controlling this projector by a PC, requires communication software on the market, and inputs control commands according to communication settings and basic format below.

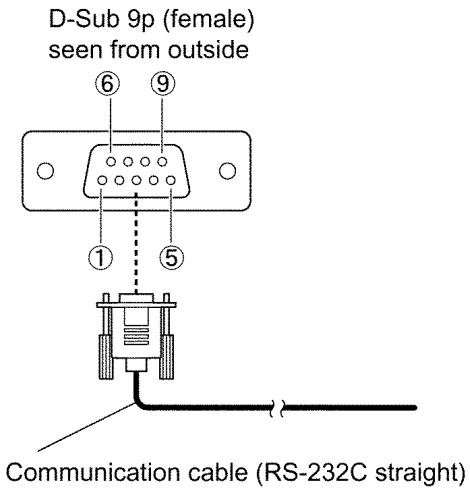
5.1. Connection



Note:

Use a proper communication cable which is suitable for the PC to connect SERIAL connector and the PC.

5.2. Pin Layout and Signal Names for SERIAL Connector



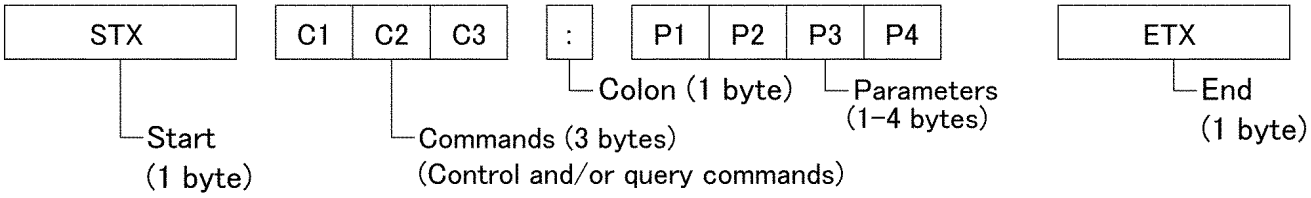
Pin No	Signal Name	Contents
1	---	NC
2	TXD	Transmit data
3	RXD	Receive data
4	---	NC
5	GND	Ground
6	---	NC
7	CTS	Connected internally
8	RTS	
9	---	NC

5.3. Communication Settings

Signal Level	Contents		Description
Sync. method	Conforms to RS-232C standard	Asynchronous	Synchronizes every 1 character (8 bits)
Baud rate		9 600 bps	Data transfer speed
Parity		None	Error detection method
Character length		8 bits	Number of bit composing 1 character
Stop bit		1 bit	Uses stop bit when asynchronous method
X parameter		Not used	
S parameter		Not used	

5.4. Basic Format

The data sent from the PC to the projector is transmitted in the format shown below.



Notes:

- If sending multiple commands, check that a call back has been received from the projector for 1 command before sending the next command.
- When a command which does not require parameters is sent, the colon (:) is not required.

5.5. Control / Query Commands

Control Commands

Command Name (Parameter format is shown in < >)	Function / Contents	Call back from Projector (Parameter format is shown in < >)	Minimum Value of Parameter	Maximum Value of Parameter
PON *	POWER ON	PON		
POF *	POWER OFF	POF		
IIS :〈input signal〉	INPUT SELECT	IIS :〈input signal〉	———	———
OFZ :〈off_on〉	FREEZE	OFZ :〈off_on〉	0	1
OEN :	ENTER	OEN		
VPM :〈picture mode〉	PICTURE MODE	VPM :〈picture mode〉	———	———
〈NOR〉	NORMAL	〈NOR〉	———	———
〈DYN〉	DYNAMIC	〈DYN〉	———	———
〈CN1〉	CINEMA1	〈CN1〉	———	———
〈CN2〉	CINEMA2	〈CN2〉	———	———
〈CN3〉	CINEMA3	〈CN3〉	———	———
〈CL1〉	COLOR1	〈CL1〉	———	———
〈CL2〉	COLOR2	〈CL2〉	———	———
OMN	MENU	OMN		
OCU	CURSOR UP	OCU		
OCD	CURSOR DOWN	OCD		
OCL	CURSOR LEFT	OCL		
OCR	CURSOR RIGHT	OCR		
OSH *	BLANK	OSH		
OST	DEFAULT	OST		
OVM	PIC.MODE	OVM		
VS1	ASPECT	VS1		
OBK	RETURN	OBK		
OLE	LENS	OLE		
FC1	FUNCTION	FC1		
OOT :〈sleep〉	SLEEP	OOT :〈sleep〉	0	7
OWM :〈x〉	WAVEFORM MONITOR	OWM :〈x〉	0	8

* Do not transmit the PON, POF and/or OSH commands continuously in a short time.
The lamp may be damaged and/or cause malfunctions.

Query Commands

Query Command	Contents	Call back from Projector (Parameter format is shown in < >)
QPW	POWER CONDITION	〈power condition〉
QIN	INPUT SIGNAL	〈input signal〉
QPM	PICTURE MODE	〈NOR〉=NORMAL 〈DYN〉=DYNAMIC 〈CN1〉=CINEMA1 〈CN2〉=CINEMA2 〈CN3〉=CINEMA3 〈CL1〉=COLOR1 〈CL2〉=COLOR2
QFZ	FREEZE	〈off_on〉
QOT	SLEEP	〈sleep〉
QSH	BLANK	〈off_on〉
QWM	WAVEFORM MONITOR	〈x〉

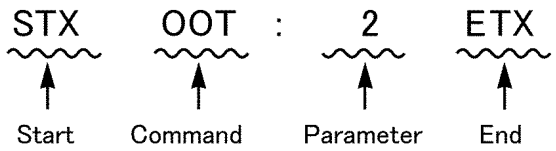
Parameters

Parameter Format	Parameter Size (Byte)	Parameter Definition
〈off_on〉	1	0=OFF, 1=ON
〈input signal〉	3	VID = VIDEO, SVD = S-VIDEO, RG1 = COMPUTER, CP1 = COMPONENT 1, CP2 = COMPONENT 2, HD1 = HDMI 1, HD2 = HDMI 2, HD3 = HDMI 3
〈power condition〉	3	000=Power OFF, 001=Power ON
〈sleep〉	1	0 = OFF, 1 = 60 min, 2 = 90 min, 3 = 120 min, 4 = 150 min, 5 = 180 min, 6 = 210 min, 7 = 240 min
〈x〉	1	0 = OFF, 1 = All Lines (Y), 2 = All Lines (R), 3 = All Lines (G), 4 = All Lines (B), 5 = Line Selection (Y), 6 = Line Selection (R), 7 = Line Selection (G), 8 = Line Selection (B)

* If an incorrect command is sent from the PC, the "ER401" command will be sent from the projector to the PC.

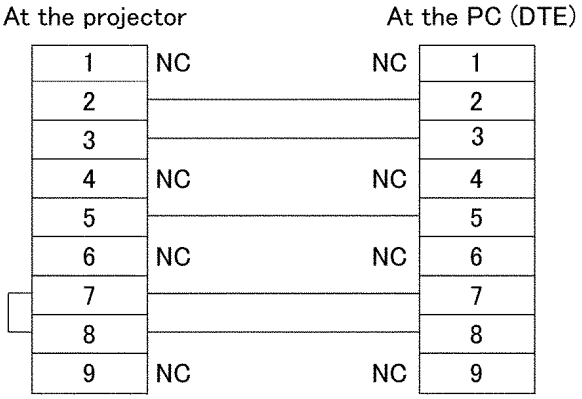
[Example]

Setting to which the power is turned off in 90 minutes, using SLEEP command by a PC



・When a command which does not require parameters is sent, the colon (:) is not required.

5.6. Communication Cable Specifications



6 Disassembly Instructions

Warning:

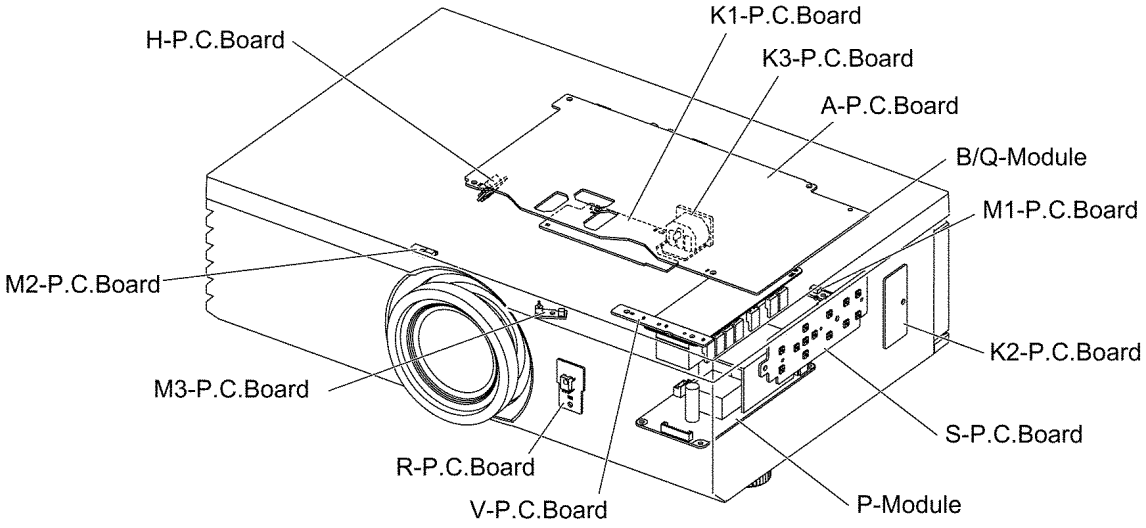
- Be sure to unplug the power cord from the power outlet before disassembling this projector.

Caution:

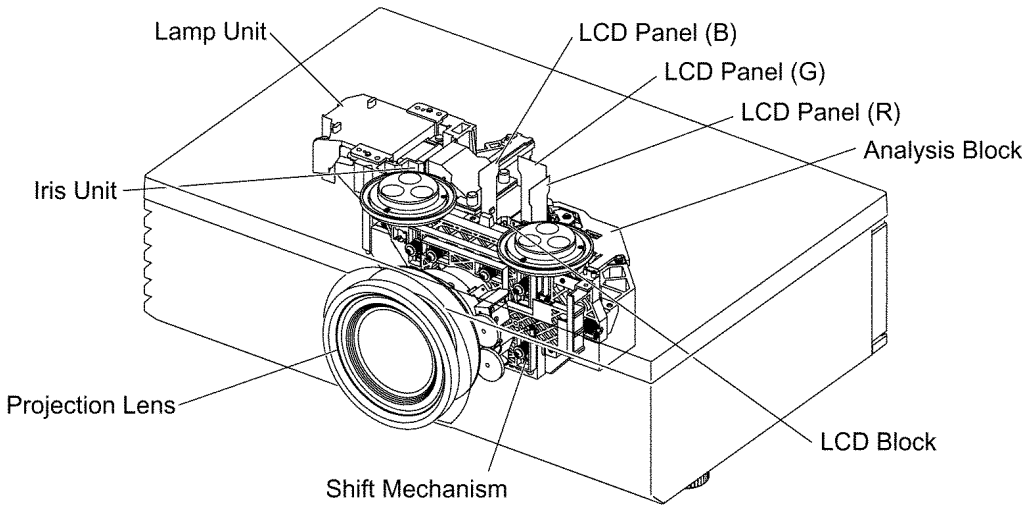
- While turning over a printed circuit board, be sure to put a insulating material under it to prevent a short circuit.
- Printed circuit boards and wires must not be pulled forcibly, but be handled carefully.
- Connectors also must be handled carefully.
- When reassembling, replace used adhesive tape with new one (Do not re-use used tape).
- After repairing this projector, be sure to put back the wires and connectors to the original condition.
- Service or repair the product according to service information on the service manual, etc. so that a fire, injury or electric shock caused by an improper repair may not occur.
  1. Do not modify equipments, components and materials when attempting to service or repair.
  2. Do not repair nor connect wires even in case of a part of the disconnection when the wiring unit is supplied as a replacement parts, replace the wiring unit (complete).
  3. For a fasten terminal (push-in type terminal), pull out or insert straightly without twisting it.
  4. When the fuse has blown, do not turn on the power supply replacing only the fuse because the secondary disaster of fumes, fire or other hazards is expected. Turn on the power supply after doing the confirmation and measures of defective causes (structure and circuit, etc.).
  5. After the service or the repair is completed, confirm the operation of the product is normal.
  6. Do handling and safekeeping carefully because the user setup information remains in the projector.

6.1. Printed Circuit Board and Main Parts Location

Electrical Parts

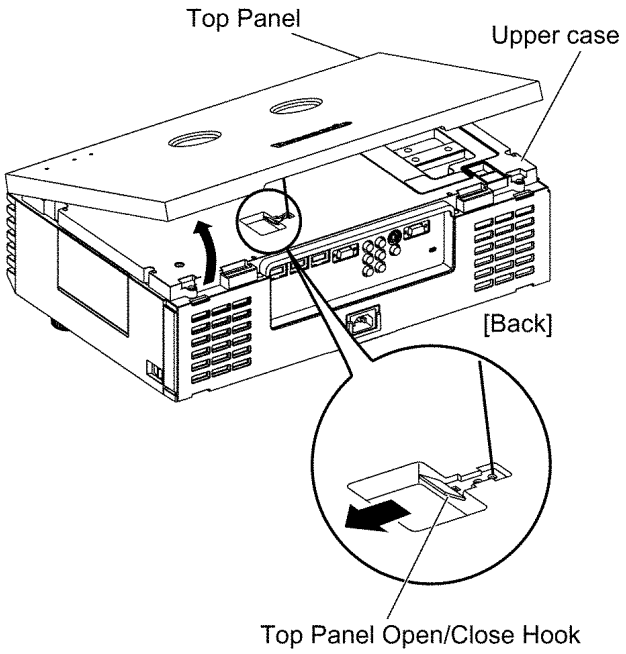


Optical Parts

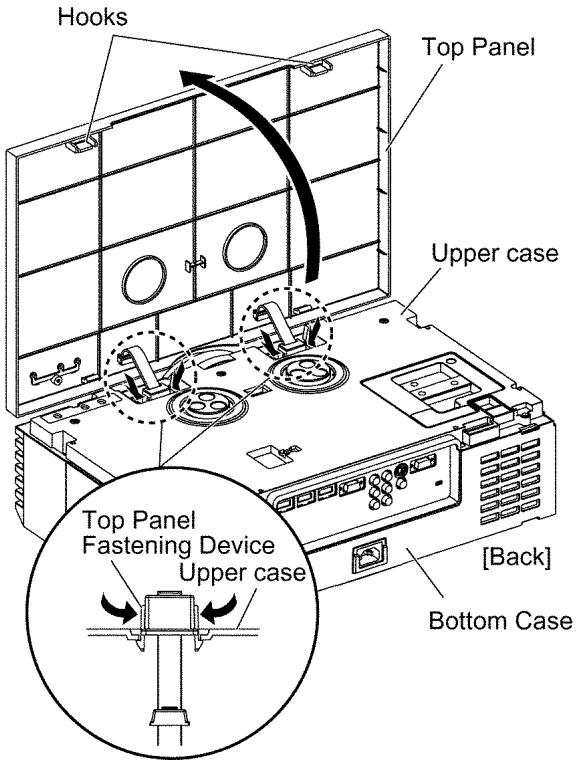


6.2. Removal of Upper Case

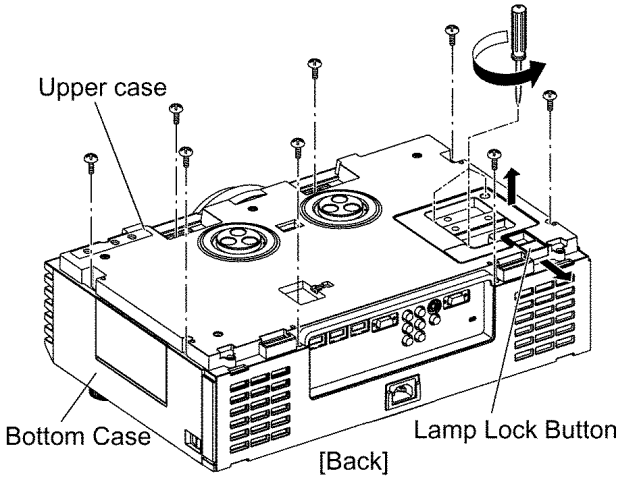
1. Lift the rear side of the top panel and disconnect the top panel Open/Close hook, then open the top panel.



2. While pressing hooks of the 2 top panel fastening devices, remove the top panel.

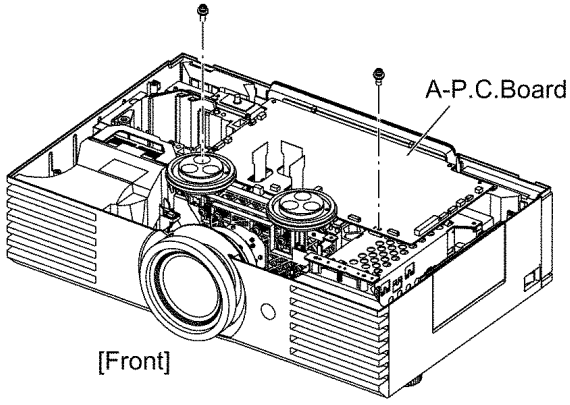


3. Loosen the 3 screws until they idle.
4. Slide the lamp lock button to release, and remove the lamp unit block (with lamp unit cover).
5. Unscrew the 8 screws and remove the upper case.

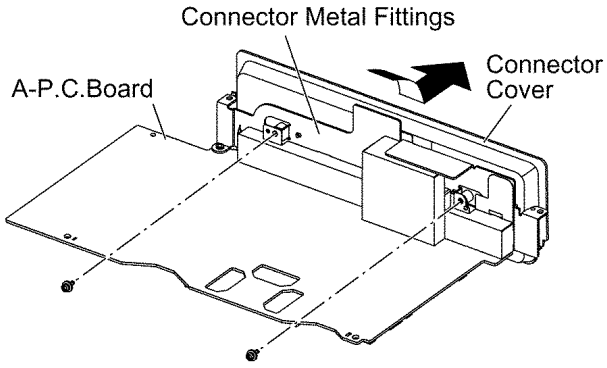


6.3. Removal of A-P.C.Board

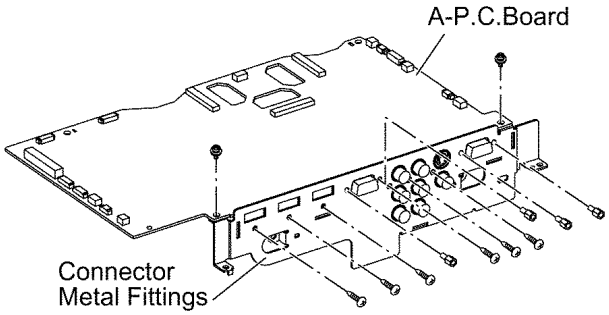
1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the A-P.C.Board block.



3. Unscrew the 2 screws and remove the connector cover.

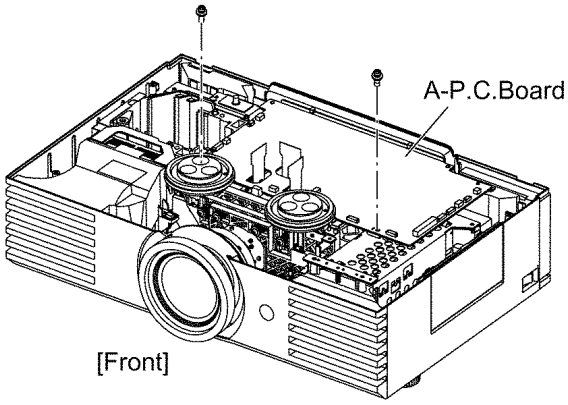


4. Unscrew the 11 screws and remove the A-P.C.Board.

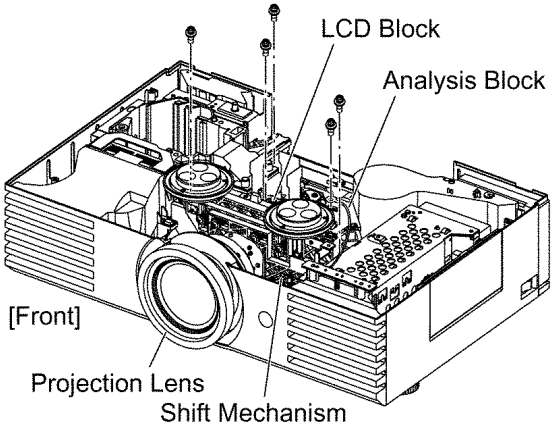


6.4. Removal of K1- and K3-P.C.Boards Block

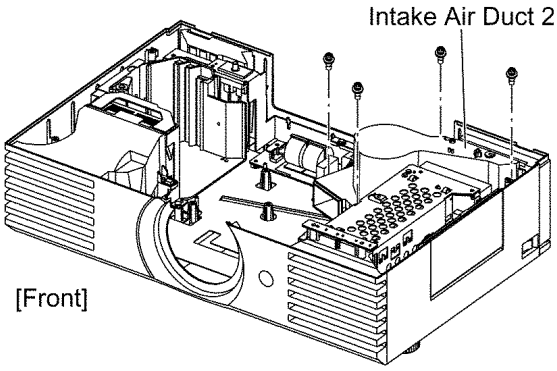
1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the A-P.C.Board block.



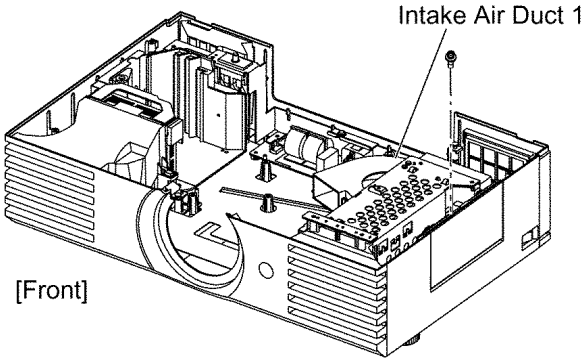
3. Unscrew the 1 screw and release the grounding terminal.
4. Unscrew the 4 screws and remove Analysis Block and the block of LCD Block / Shift Mechanism / Projection Lens.



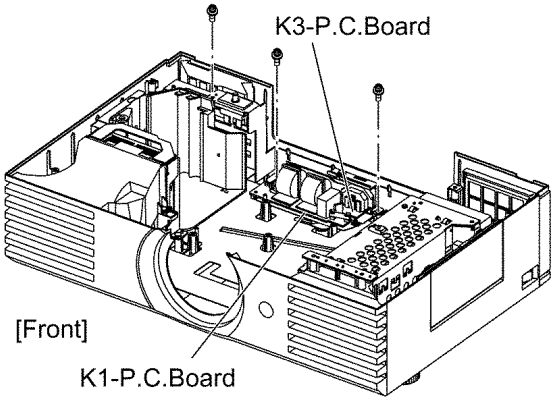
5. Unscrew the 4 screws and remove the intake air duct 2.



6. Unscrew the 1 screw and remove the intake air duct 1.

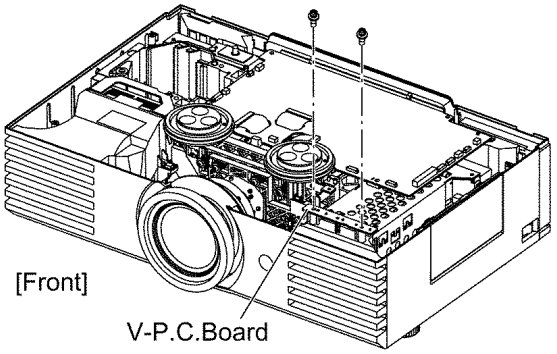


7. Unscrew the 3 screws and remove the K1- and K3-P.C.Boards block.



6.5. Removal of R-P.C.Board

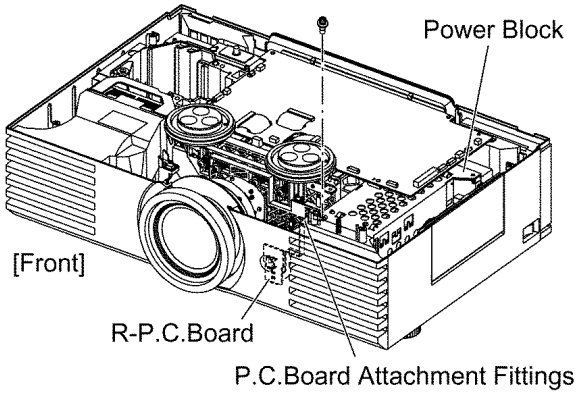
1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the V-P.C.Board.



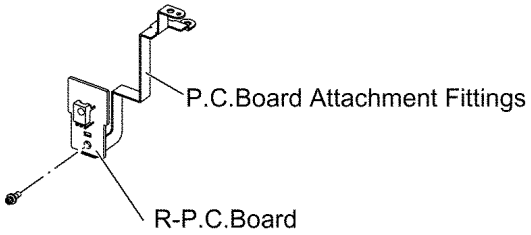
3. Unscrew the 1 screw and remove the P.C.Board attachment fittings with R-P.C.Board.

Note:

- R-P.C.Board is secured. Be careful not to apply excessive force.

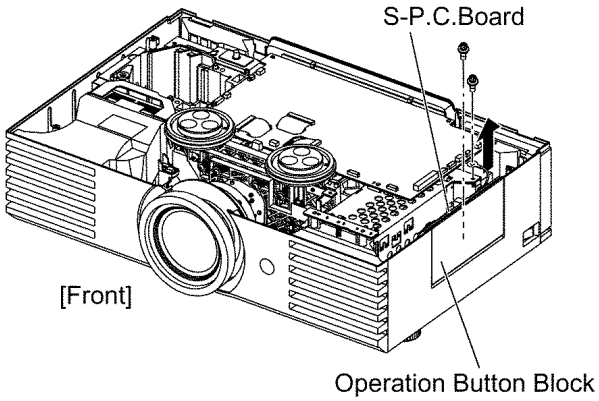


4. Unscrew the 1 screw and remove the R-P.C.Board.

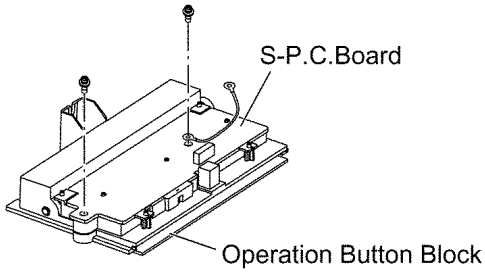


6.6. Removal of S-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 1 screw and release the grounding terminal.
3. Unscrew the 1 screw and remove the operation button block.

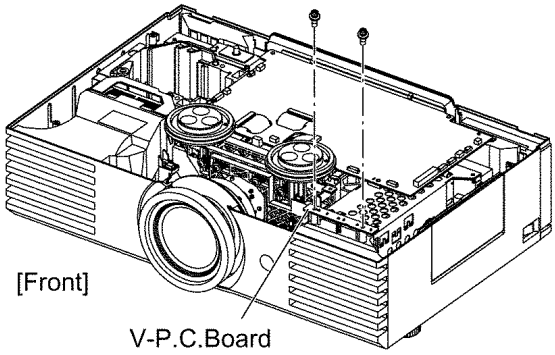


4. Unscrew the 2 screws and remove the S-P.C.Board.



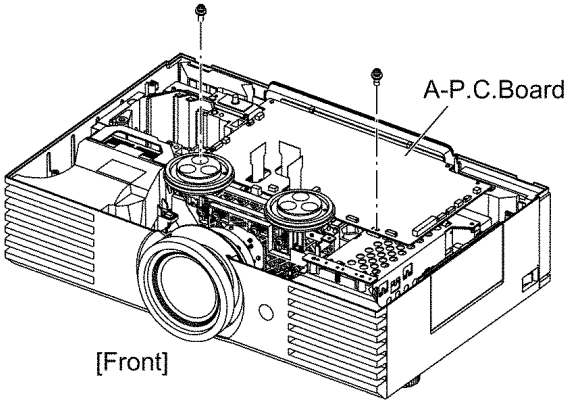
6.7. Removal of V-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the V-P.C.Board.

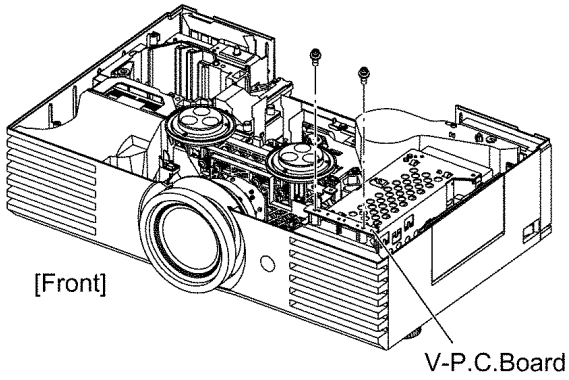


6.8. Removal of B/Q-Module

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the A-P.C.Board block.



3. Unscrew the 2 screws and remove the V-P.C.Board.

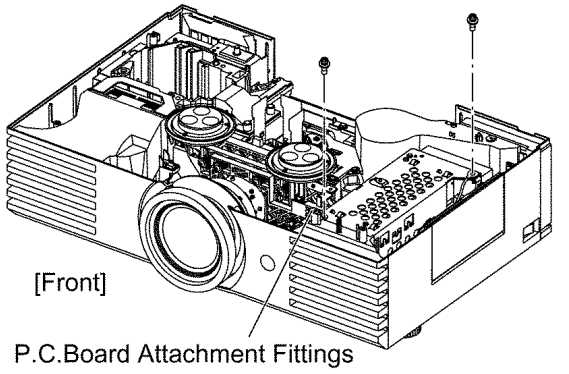


4. Unscrew the 1 screw and remove the P.C.Board attachment fittings with R-P.C.Board.

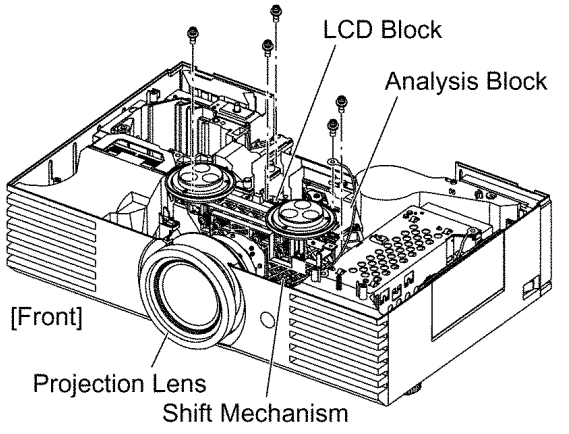
   Note:

   - R-P.C.Board is secured. Be careful not to apply excessive force.

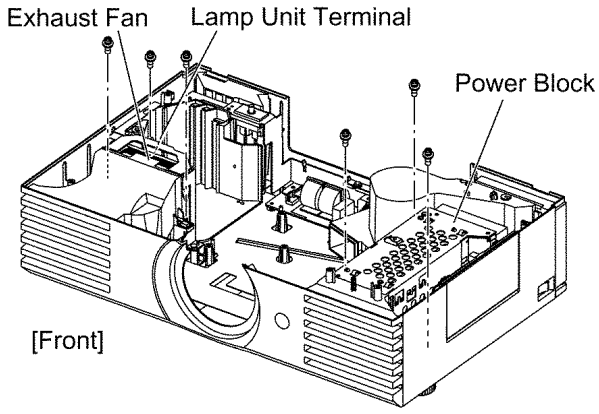
5. Unscrew the 1 screw and release the grounding terminal.



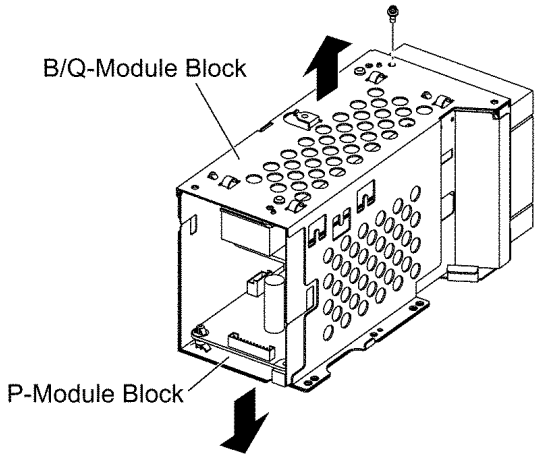
6. Unscrew the 1 screw and release the grounding terminal.
7. Unscrew the 4 screws and remove the block of Analysis Block, LCD Block, Shift Mechanism and Projection Lens.



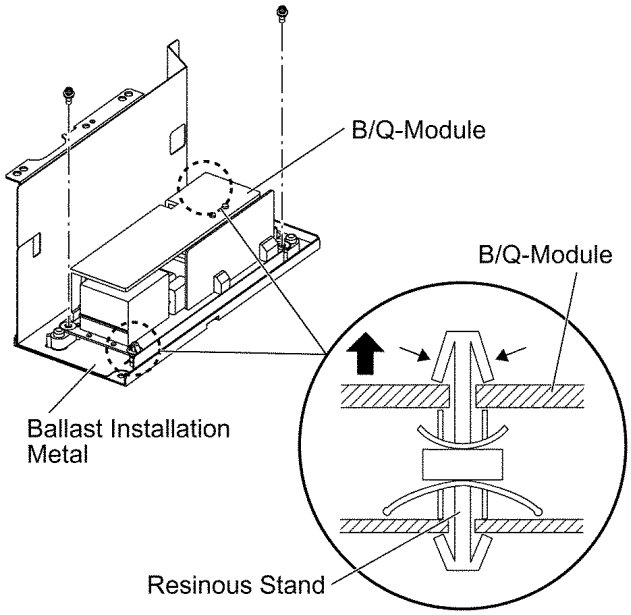
8. Unscrew the 2 screws and remove the exhaust fan.
9. Unscrew the 1 screw and release the lamp unit terminal.
10. Unscrew the 3 screws and remove the power block (B/Q-Module and P-Module).



11. Unscrew the 1 screw and separate the B/Q-Module block and P-Module block.



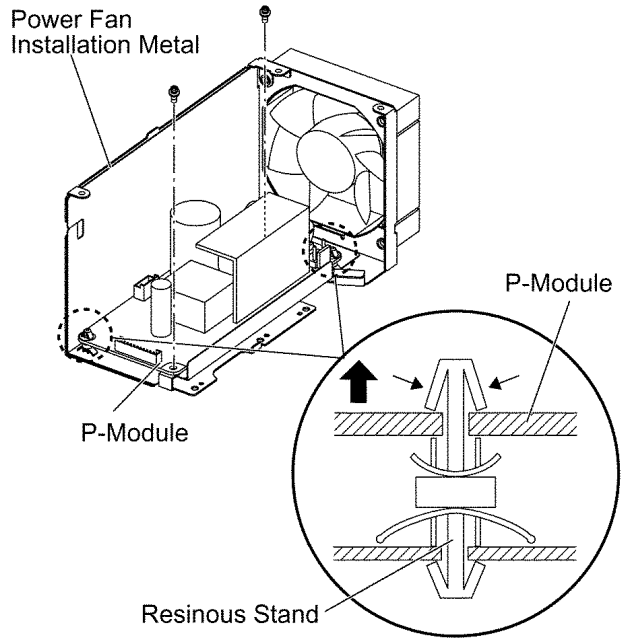
12. Unscrew the 2 screws.
13. While pressing to shut each hook of the 2 resinous stands, remove the B/Q-Module.



6.9. Removal of P-Module

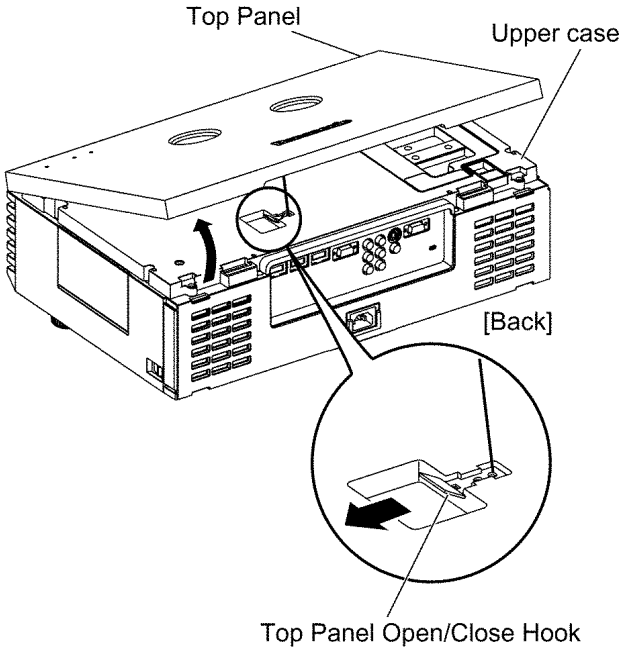
1. Remove the P-Module block according to the steps 1 through 11 in the section 6.8. "Removal of B/Q-Module".
2. Unscrew the 2 screws.

3. While pressing to shut each hook of the 2 resinous stands, remove the P-Module.

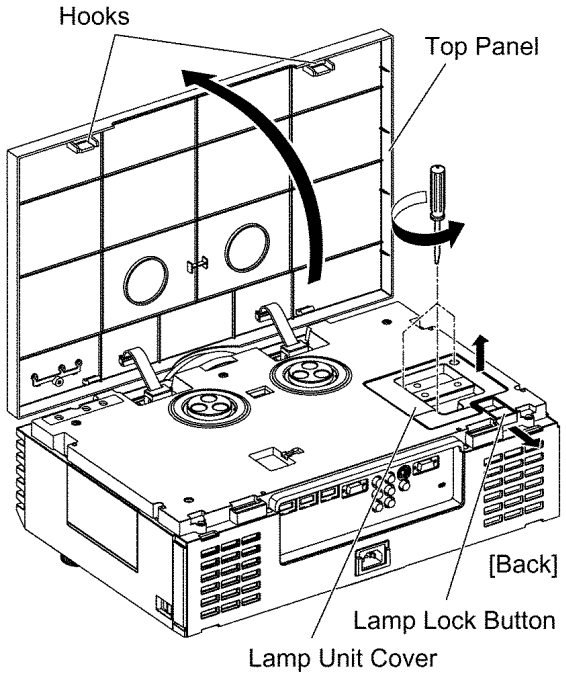


6.10. Removal of Lamp Unit

1. Lift the rear side of the top panel and disconnect the top panel Open/Close hook, then open the top panel.

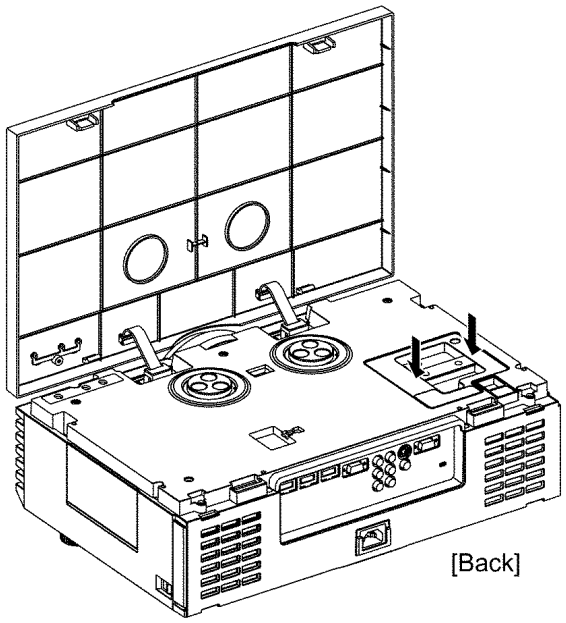


2. Loosen the 3 screws until they idle.
3. Slide the lamp lock button to release, and remove the lamp unit block (with lamp unit cover).



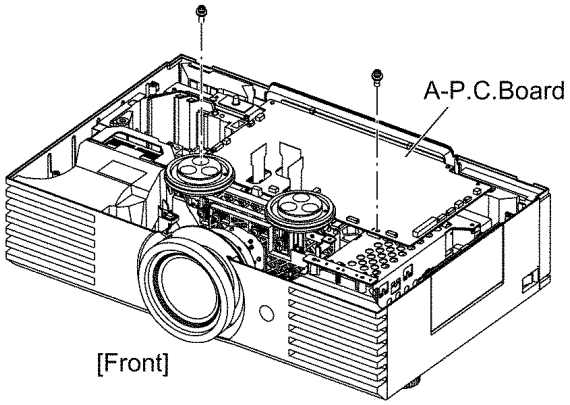
Note:

- When installing the lamp unit in the main unit, place it in a specified position and press the connector side and the opposite side of the lamp unit (arrow positions shown in the figure below), and confirm the lamp unit is inserted securely. Then, tighten the 3 screws fixing the lamp unit cover.

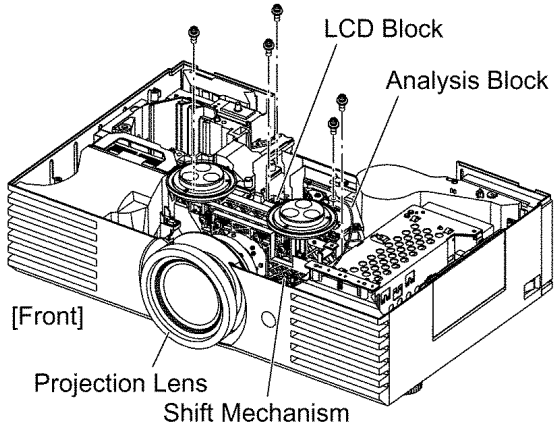


6.11. Removal of Analysis Block and LCD Block / Shift Mechanism / Projection Lens

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the A-P.C.Board block.



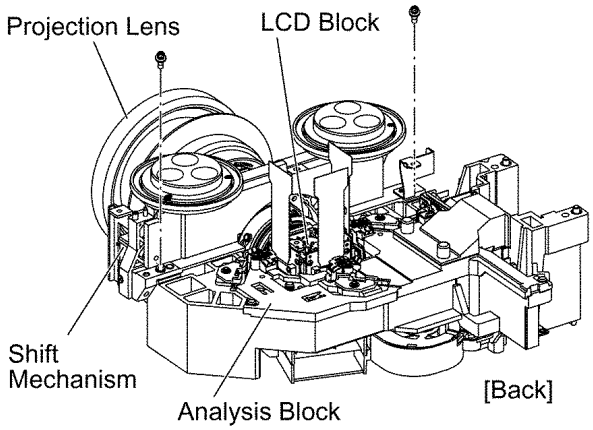
3. Unscrew the 1 screw and release the grounding terminal.
4. Unscrew the 4 screws and remove Analysis Block and the block of LCD Block / Shift Mechanism / Projection Lens.



5. Unscrew the 2 screws and separate Analysis Block and the block of LCD Block / Shift Mechanism / Projection Lens.

Note:

- There is not enough space between the analysis block and LCD block. Be careful not to damage nor dirty precision components (LCD panel, incidence polarizer, etc.) when removing.



6.12. Replacement of Incidence Polarizer

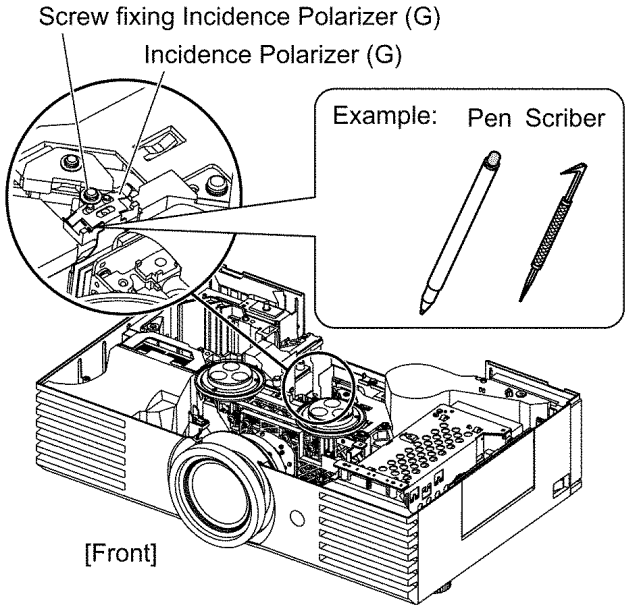
The procedure is described as an example of incidence polarizer (G).

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the A-P.C.Board block.
3. Mark positions of the incidence polarizer (G).

Note:

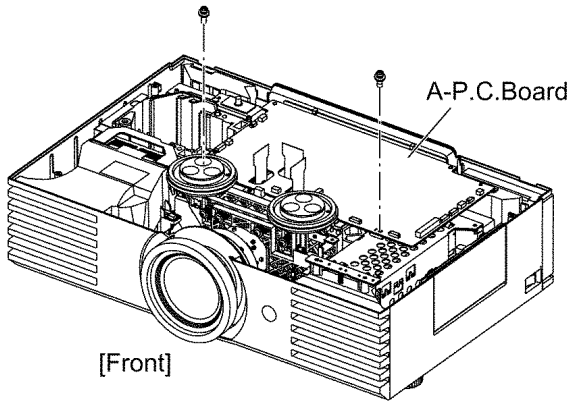
- Mark accurately as possible because the marks will be used for resetting the incidence polarizer position.

4. Unscrew the 1 screw and remove the incidence polarizer (G).
5. Attach a new incidence polarizer and align it with the mark.
6. Tighten the 1 screw with care not to move the incidence polarizer position.



6.13. Replacement of PBS Array (Analysis Block)

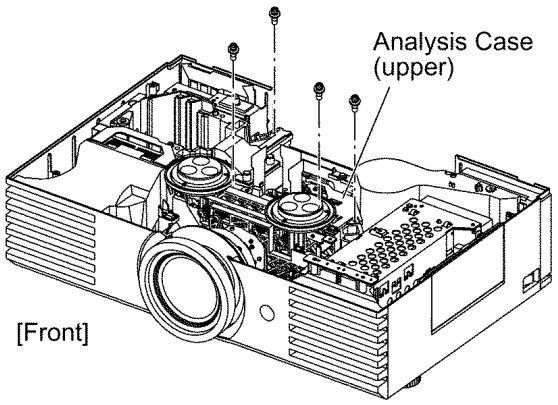
1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the A-P.C.Board block.

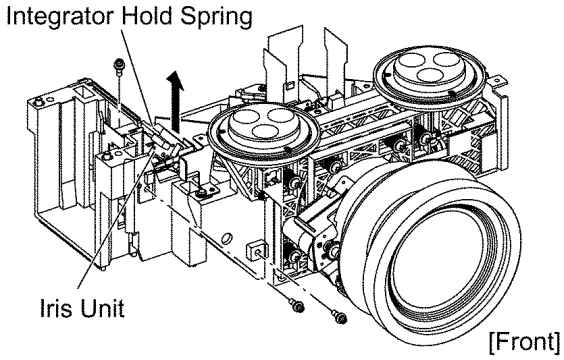


3. Unscrew the 4 screws and remove the analysis case (upper).

Note:

- The incidence polarizer is installed in the analysis case (upper). Be careful not to shift the installation position nor damage it.

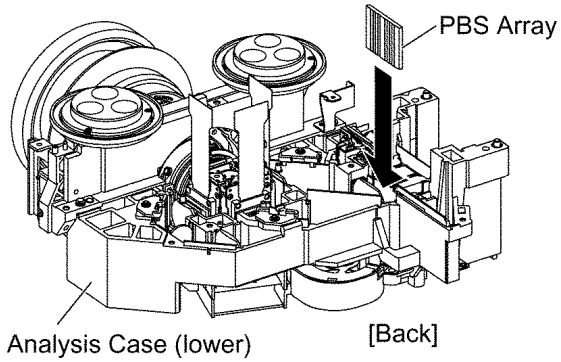




4. Remove the PBS array.
5. Install new PBS array.

Note:

- Be careful not to mistake the direction (inside/outside, upper/lower).
- Be careful not to touch the surface of PBS array.

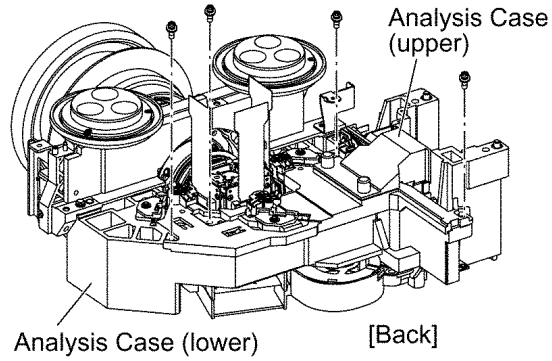


6.14. Removal of Iris Unit

1. Remove the Analysis Block and the block of LCD Block / Shift Mechanism / Projection Lens according to the steps 1 through 4 in the section 6.11. "Removal of Analysis Block and LCD Block / Shift Mechanism / Projection Lens".
2. Unscrew the 4 screws and remove the analysis case (upper).

Note:

- The incidence polarizer is installed in the analysis case (upper). Be careful not to shift the installation position nor damage it.



3. Unscrew the 1 screw and remove the integrator hold spring.
4. Unscrew the 2 screws and remove the iris unit .

7 Measurement and Adjustments

When the following components in this projector are replaced, adjustments are required. Adjust each item according to the table below.

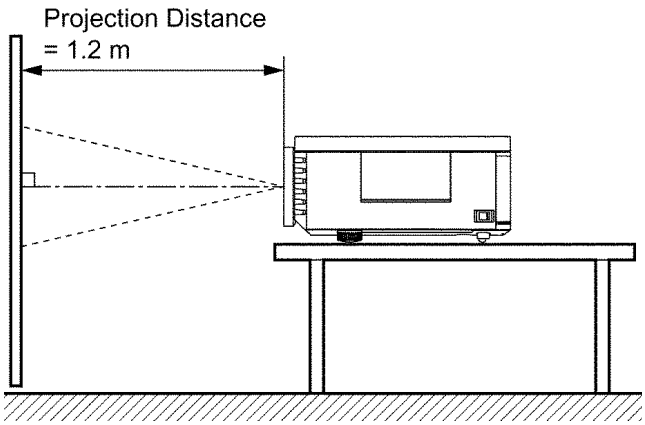
Adjustment Item	Replaced Component		Remarks
	LCD Block	A-P.C.Board	
Lighting Area Adjustment	-	-	When the color unevenness appears, it adjusts it.
Flicker Adjustment	Required	Required	Using the adjustment mode
Input Level Adjustment	-	Required	Using Adjustment Tool

7.1. Cautions for Adjustment

- Never turn off the MAIN POWER switch until every fan completely stops.
- To maintain and ensure safety, always use the designated components for replacement parts.
- If removing any clamps, lead wires or connectors, always place them back in their proper locations.
- Be careful not to damage the lead wires or components when using a soldering iron or similar tool.

7.2. Setting Before Adjustment

- Set up the projector to obtain the projection distance below.
- Turn the zoom ring of the projector to obtain the largest size of the picture.



7.3. Lighting Area Adjustment

7.3.1. Tools to be used

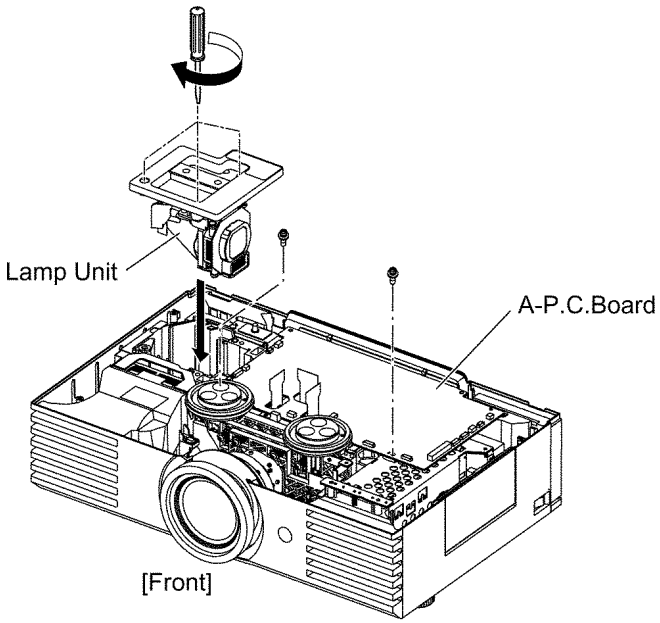
Service Kit (Part No. TZSH07027): This kit is composed of 3 extension flexible cables and 5 connector extension cables.

Note:

- Consult your dealer or Authorized Service Center for the service kit.

7.3.2. Preparation

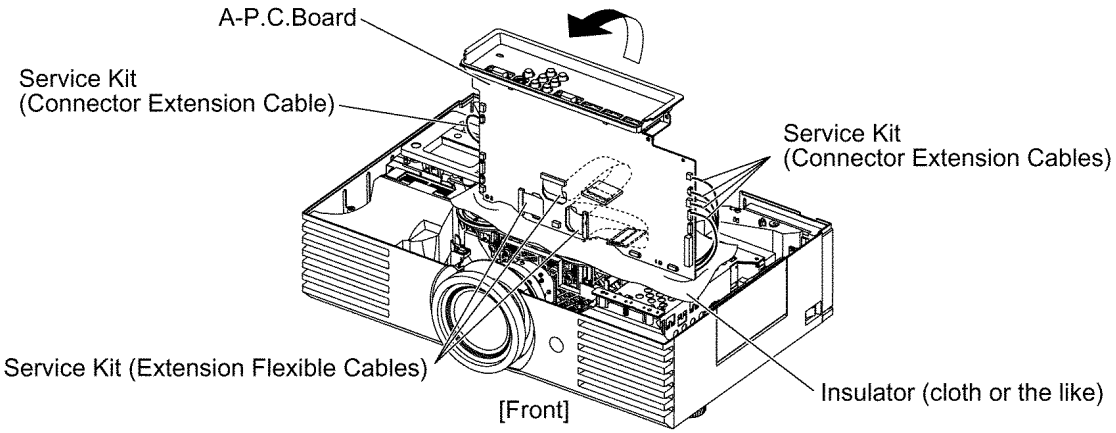
1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Install the lamp unit block (with lamp unit cover) and tighten the 3 screws fixing the lamp unit cover.
3. Unscrew the 2 screws fixing the A-P.C.Board.



4. Connect the service kit (extension cables).
   - Each flexible cable of LCD Panels (R/G/B) - Connectors (A1/A2/A3) on A-P.C.Board
   - Intake fan connector - Connector (A15) on A-P.C.Board
   - Power fan connector - Connector (A16) on A-P.C.Board
   - PBS fan connector - Connector (A18) on A-P.C.Board
   - Thermosensor (Intake air) connector - Connector (A7) on A-P.C.Board
   - H-P.C.Board connector - Connector (A23) on A-P.C.Board
5. Covering with an insulator (cloth or the like) to prevent a short circuit, set the A-P.C.Board block on the main unit.

Note:

- Handle with care not to apply external force to connecting parts which connect the main unit and A-P.C.Board.



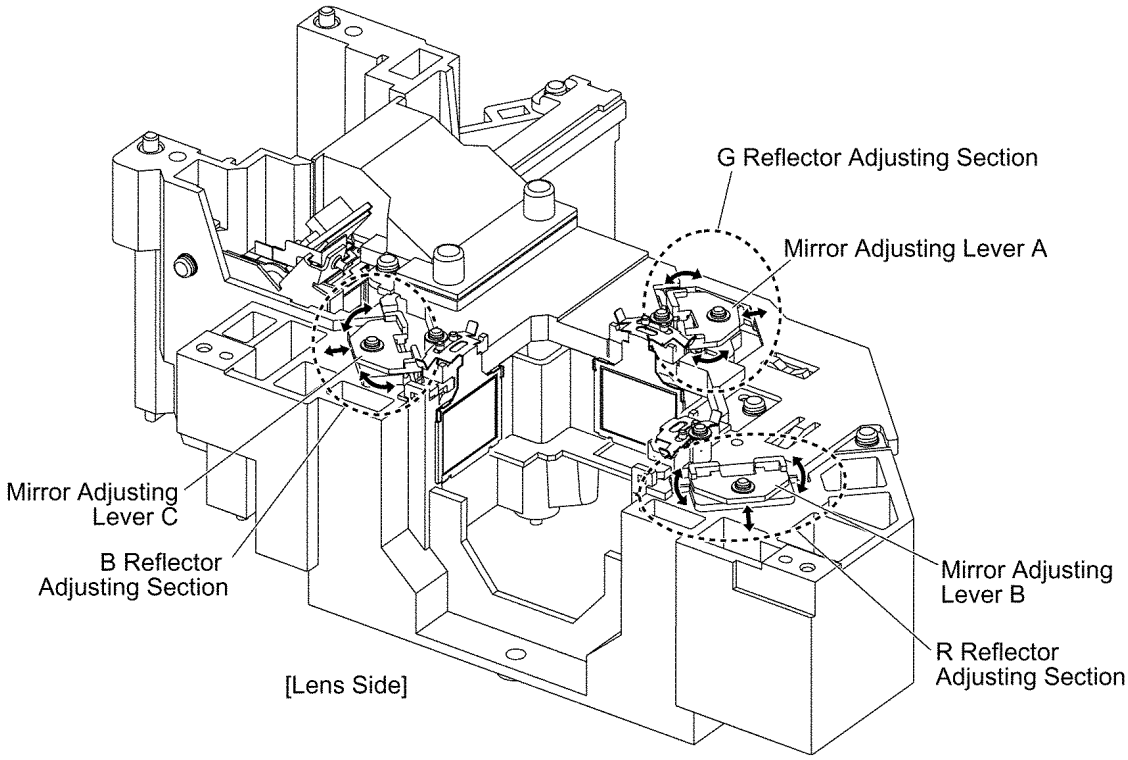
7.3.3. Adjustment Procedure

7.3.3.1. Outline

When the lighting area is off from the adjustment and color unevenness appears, adjust the lighting area into correct position.

Symptom	Measure
Magenta unevenness	G Reflector Adjustment
Cyan unevenness	R Reflector Adjustment
Yellow unevenness	B Reflector Adjustment

- Shifting the mirror adjusting lever horizontally, adjust color unevenness on the screen upper/lower sides.
- Twisting the mirror adjusting lever, adjust color unevenness on the screen right/left sides.



[Above figure is shown only the analysis block for explanation.]

7.3.3.2. G Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 1 screw fixing the mirror adjusting lever A just until the lever can be shifted.
3. Adjust the mirror adjusting lever A position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 1 screw.

7.3.3.3. R Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 1 screw fixing the mirror adjusting lever B just until the lever can be shifted.
3. Adjust the mirror adjusting lever B position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 1 screw.

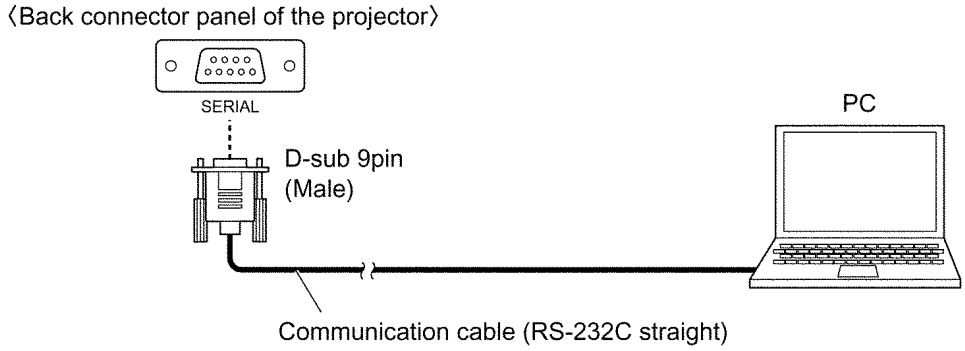
7.3.3.4. B Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 1 screw fixing the mirror adjusting lever C just until the lever can be shifted.
3. Adjust the mirror adjusting lever C position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 1 screw.

7.4. Software for Adjustment

7.4.1. Outline

- This projector needs computer-aided adjustments.
- After the software adjustments, this projector must be turned off and on again to memorize the settings.
- Connect the cable between the projector and a PC as shown below.
- Updating the software will change the version number.



7.4.2. Operating Procedure

1. Run software program by the keyboard entry.

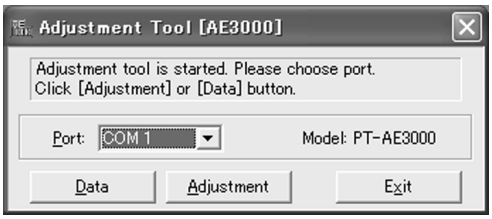
Note:

・Use the software program as below.

Adjustment Tool [AE3000]

2. The first menu is Port selection menu.
3. Adjust the projector by selecting the necessary item from the menu in each stage.

7.4.3. Port Selection Menu



Select the port name of PC which connects with the projector, then click [Data] or [Adjustment] button.

7.4.3.1. Explanation of Buttons

Data:

Displays the data setting menu.

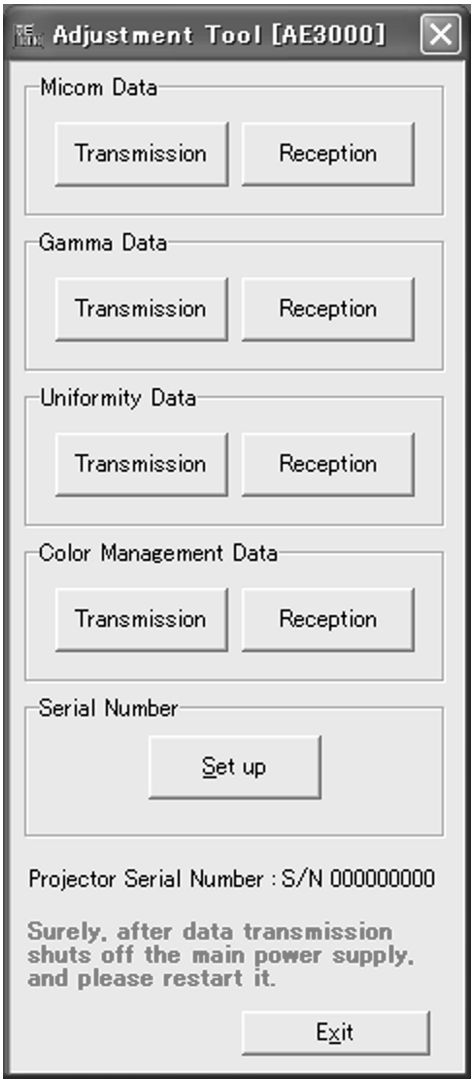
Adjustment:

Displays the adjustment menu.

Exit:

Exits this application.

7.4.4. Data Setting Menu



7.4.4.1. Explanation of Buttons

Micom Data [Transmission]:

Reads the microcomputer data from the file and transmits it to the projector.

Micom Data [Reception]:

Receives the microcomputer data from the projector and writes it in the file.

Gamma Data [Transmission]:

Reads the gamma data from the file and transmits it to the projector.

Gamma Data [Reception]:

Receives the gamma data from the projector and writes it in the file.

Uniformity Data [Transmission]:

Reads the color unevenness correction data from the file and transmits it to the projector.

Uniformity Data [Reception]:

Receives the color unevenness correction data from the projector and writes it in the file.

Color Management Data [Transmission]:

Reads the color management data from the file and transmits it to the projector.

Color Management Data [Reception]:

Receives the color management data from the projector and writes it in the file.

Serial Number [Set up]:

Displays Serial Number menu.

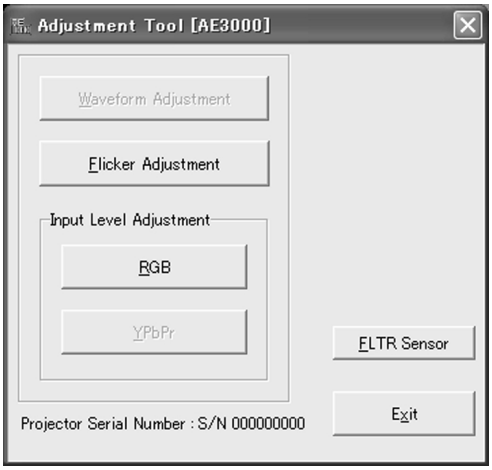
Exit:

Exits this application.

7.4.4.2. Receiving and transmitting of the data

Click a target button and specify a file name.

7.4.5. Adjustment Menu



7.4.5.1. Explanation of Buttons

Flicker Adjustment:

Displays Flicker Adjustment menu.

Input Level Adjustment [RGB]:

Displays Input Level Adjustment (RGB) menu.

FLTR Sensor:

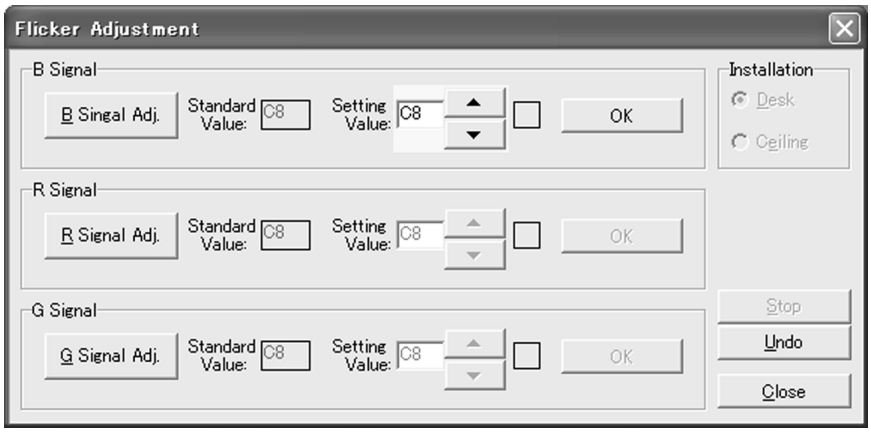
Displays "Revision of filter sensor" window and executes the sensor correction.

Exit:

Exits this application.

7.5. Flicker Adjustment

7.5.1. Adjustment Menu



7.5.2. Explanation of Buttons

B Signal Adj.:

Sets the test signal mode to the B-signal and allows the " ▲ ", " ▼ " and "OK" buttons of the B-signal to becomes active.

R Signal Adj.:

Sets the test signal mode to the R-signal and allows the " ▲ ", " ▼ " and "OK" buttons of the R-signal to becomes active.

G Signal Adj.:

Sets the test signal mode to the G-signal and allows the " ▲ ", " ▼ " and "OK" buttons of the G-signal to becomes active.

▲ or ▼

Changes the setting value and transmits its data. (The 8 and 2 keys on the keyboard have the same functions.) If releasing the mouse or key after pressing it continuously, the data is transmitted once. The variable setting value is enclosed in a box and using the TAB or SPACE key allows the move of the box.

OK:

Determines the setting value and stores its data in the EEPROM. (The ENTER key on the keyboard has the same function.) The item having two or more kinds of setting values is processed two or more items. Clicking this button or pressing ENTER key changes the color of the text "OK" to cyan (light blue). If changing the setting value using the " ▲ " or " ▼ " button or the 8 or 2 key, its color returns to black.

Stop:

Discontinues the communication. (This button is usually set for its inactive mode.)

Undo:

Returns the setting value to its original state and transmits its data. The color of the text "OK" returns to black.

Close:

Closes this menu.

7.5.3. Equipment to be used

PC, Software for Adjustment

7.5.4. Adjustment Procedure

1. Display Flicker Adjustment menu.
2. Click "B Signal Adj," and the blue flicker adjustment pattern will be displayed.
3. Minimize the flicker while observing the projected pattern.
4. Click "R Signal Adj," and the red flicker adjustment pattern will be displayed.
5. Minimize the flicker while observing the projected pattern.
6. Click "G Signal Adj," and the green flicker adjustment pattern will be displayed.
7. Minimize the flicker while observing the projected pattern.

7.6. Input Level Adjustment (RGB)

7.6.1. Adjustment Menu

7.6.2. Explanation of Buttons

OK:

Executes automatic sub contrast and sub brightness adjustments, then closes this dialog.

Cancel:

Cancels this menu.

7.6.3. Equipment to be used

PC, RGB Signal Generator, Software for Adjustment

7.6.4. Adjustment Procedure

1. Display Input Level Adjustment (RGB) menu.
2. Input a window pattern signal to COMPUTER IN connector.

Note:

- Use approx. 15 % window pattern as follows.

  Black background (screen width) : White window width = 2 : 1

  Black background (screen height) : White window height = 3 : 1

・Must use the window pattern of 1 080p (1 920 x 1 280).

3. Click the OK button.

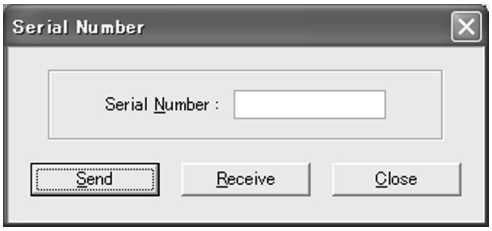
7.7. Serial Number Setup

Set the serial number if the A-P.C.Board is replaced and the product serial number disappears.

Note:

・Set the projector into standby mode (POWER indicator on the projector illuminated red), and execute the procedure in 7.7.4.

7.7.1. Setting Menu



7.7.2. Explanation of Buttons

Send:

Sends and writes the serial number to the projector.

Receive:

Receives the serial number from the projector.

Close:

Closes this dialog.

7.7.3. Equipment to be used

PC, Software for Adjustment

7.7.4. Setting Procedure

1. Display Serial Number menu.
2. Click [Send] button after inputting the serial number.

7.8. Sensor Correction

Execute the sensor correction when EEPROM (IC1061) / A-P.C.Board or filter sensor (CF2004) is replaced.

7.8.1. Equipment to be used

PC, Software for Adjustment

7.8.2. Correcting Procedure

Clean the air filter enough before executing the correction. (If the air filter is dirty, it is not possible to correct the sensor normally.)

Note:

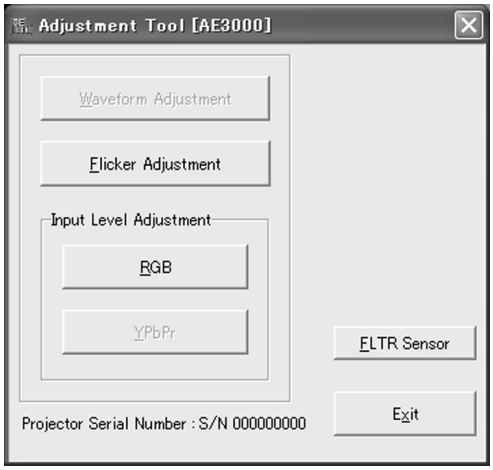
・When cleaning is ineffective, replace the air filter with new one.

1. Switch the MAIN POWER button ON to light the lamp. (Signals need not be input.)

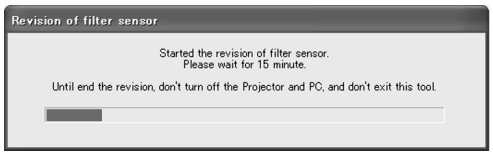
   Note:

   ・When AUTO SEARCH is operating, interrupt it by operating INPUT button.

2. Display the adjustment menu.



3. Click [FLTR Sensor] button.
4. When "Revision of filter sensor" window is displayed and the window will close automatically in approx. 15 minutes, the correction is completed.



Notes:

- If the correction cannot start normally, execute it after disconnecting the power plug of the projector and switching ON the projector again.
- Do not shut down Software for Adjustment / PC or switch OFF the projector while correcting.
- While correcting, the software version display appears (approx. 15 minutes).

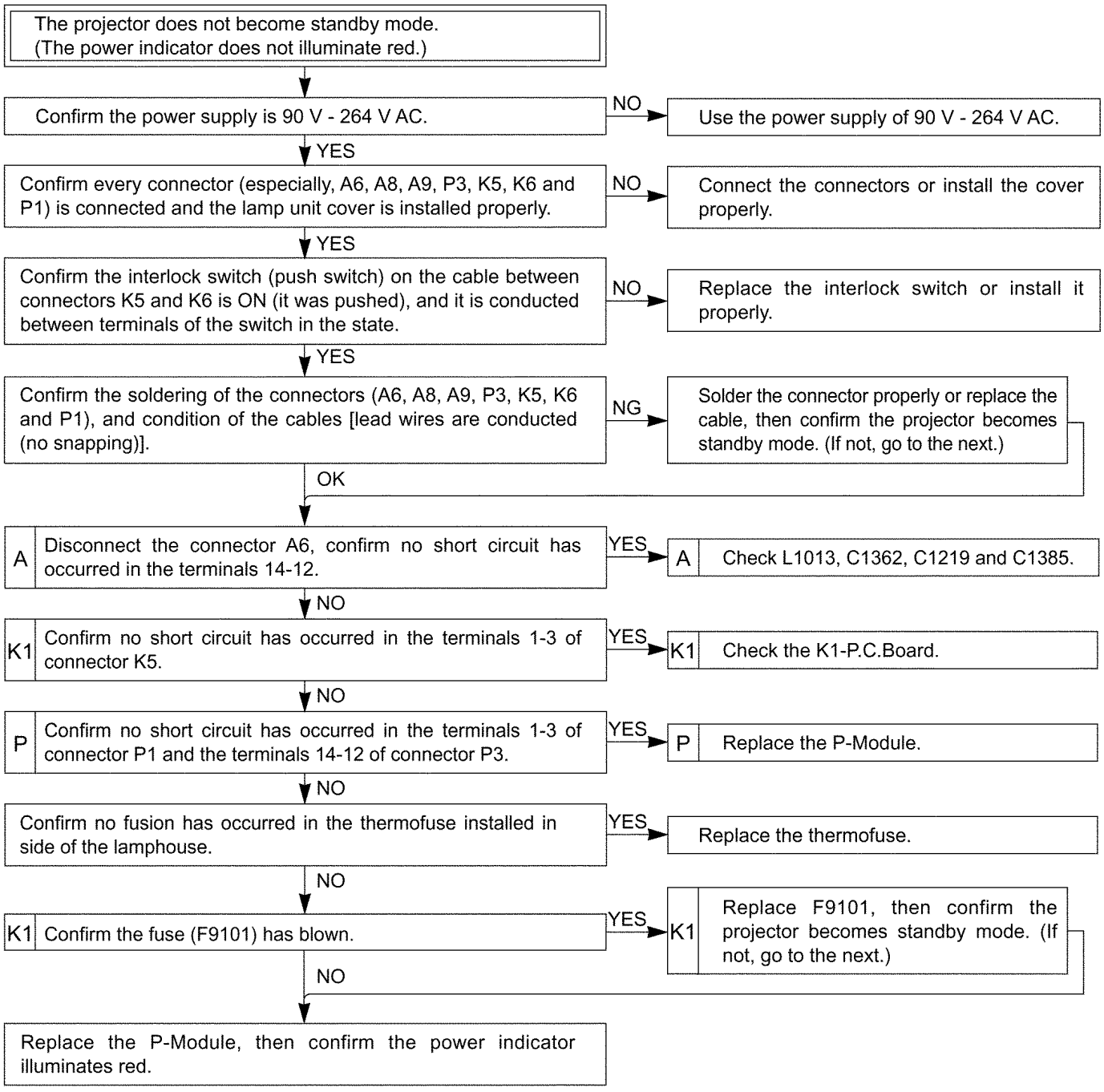
8 Troubleshooting

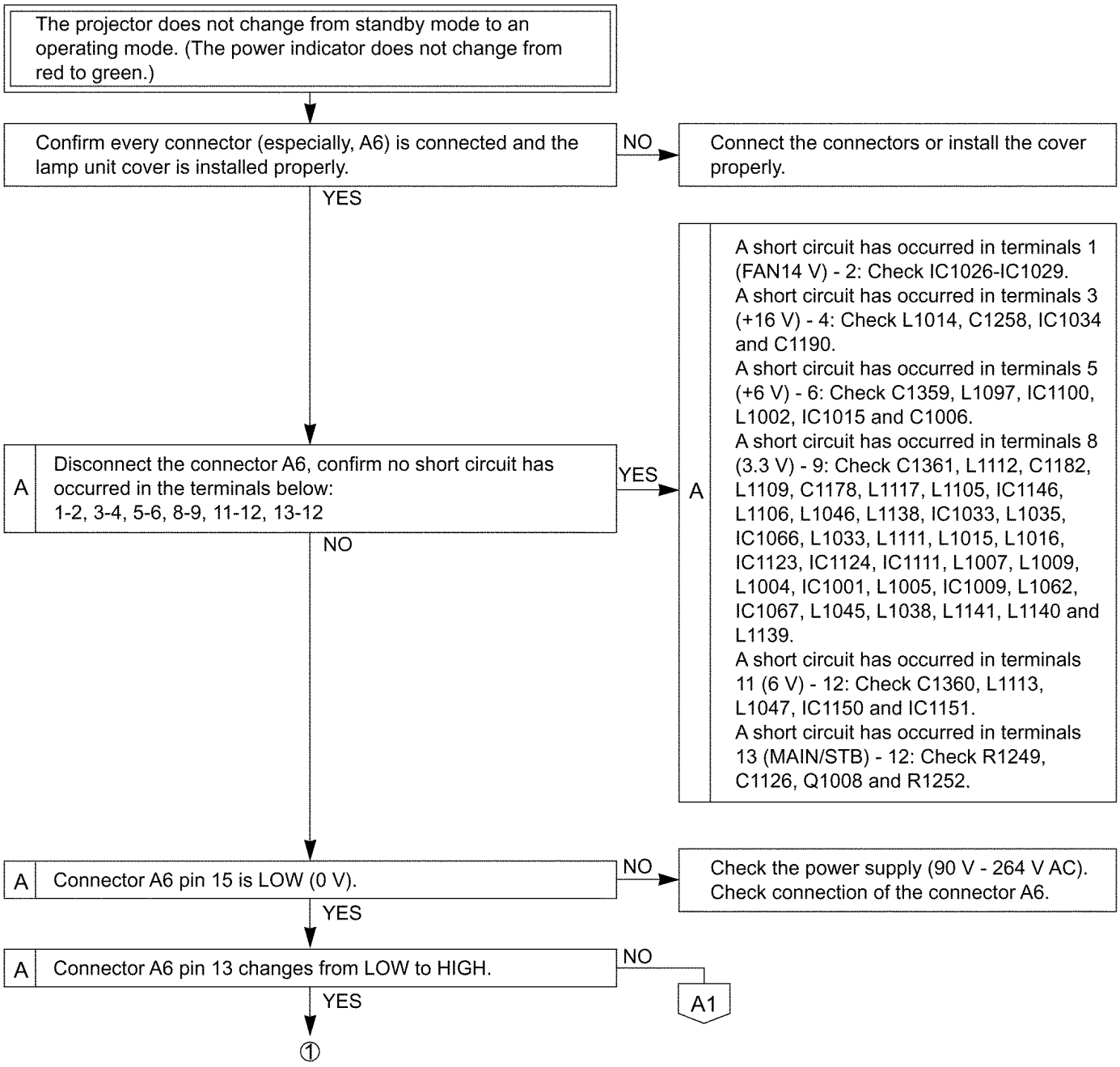
- The letters in the left of the inspection items indicate the P.C.Boards or Modules related to their respective descriptions.

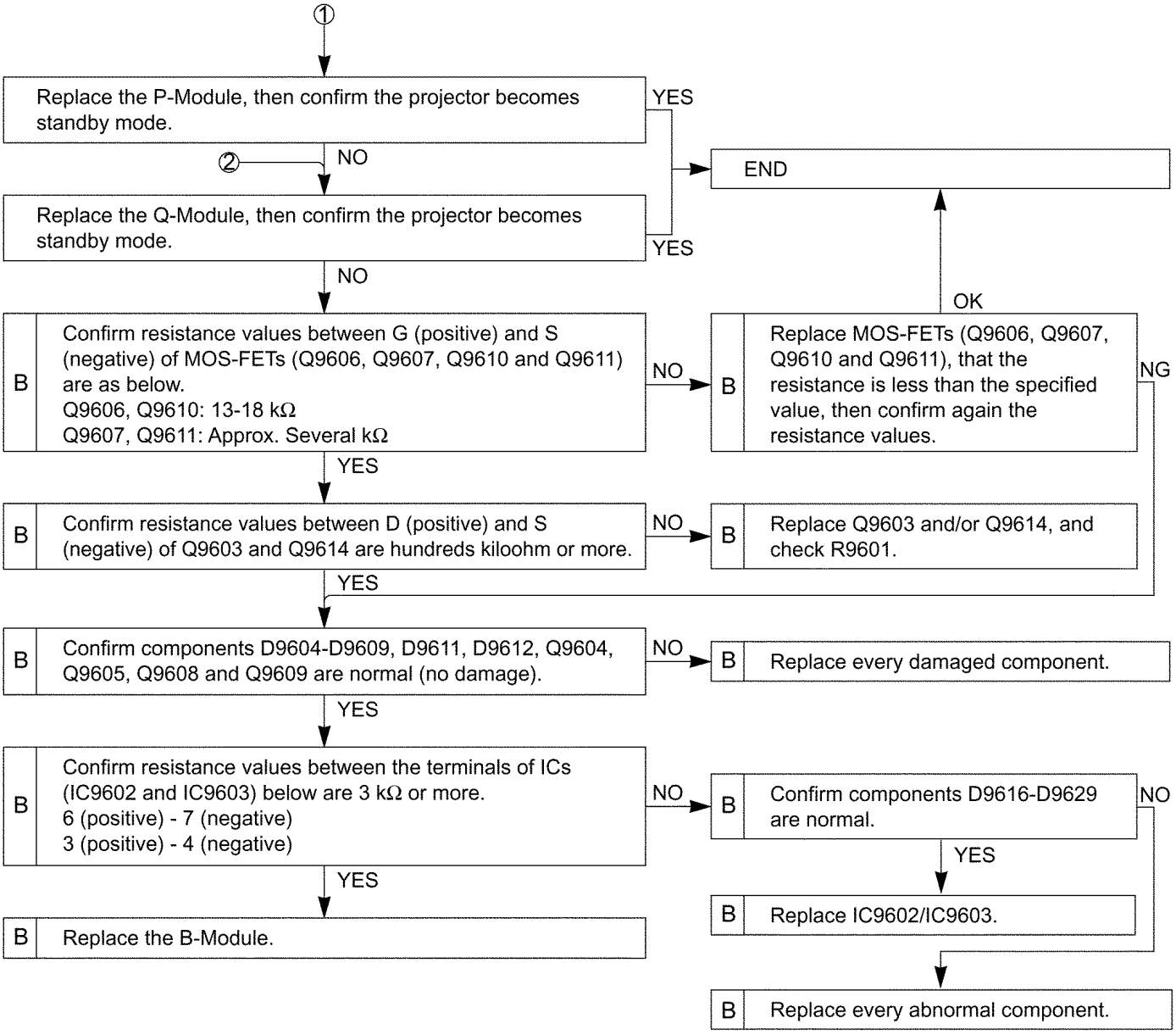
Note: A

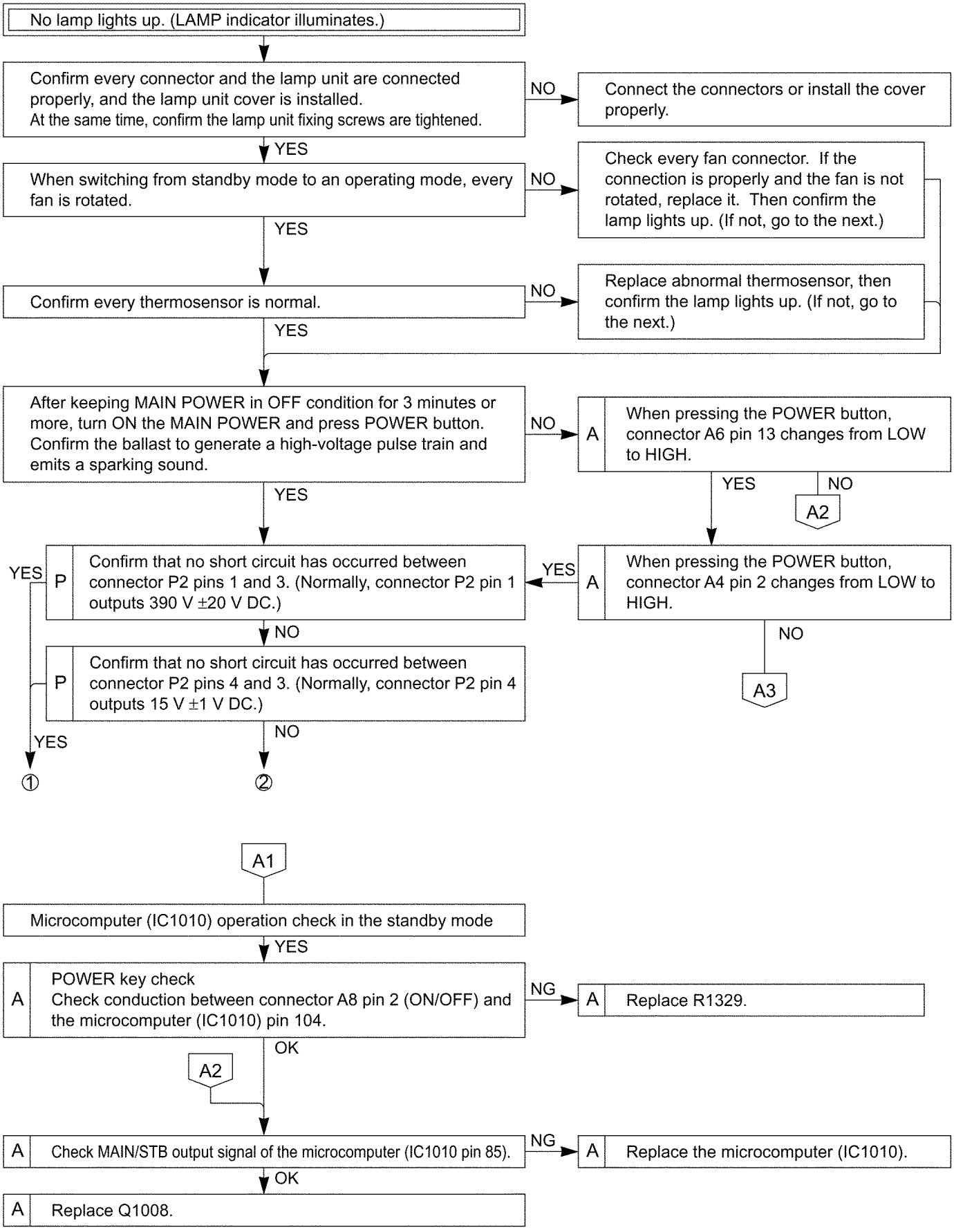
The letter of the alphabet indicates the P.C.Board or Module name.
(Example) A: A-P.C.Board, P: P-Module

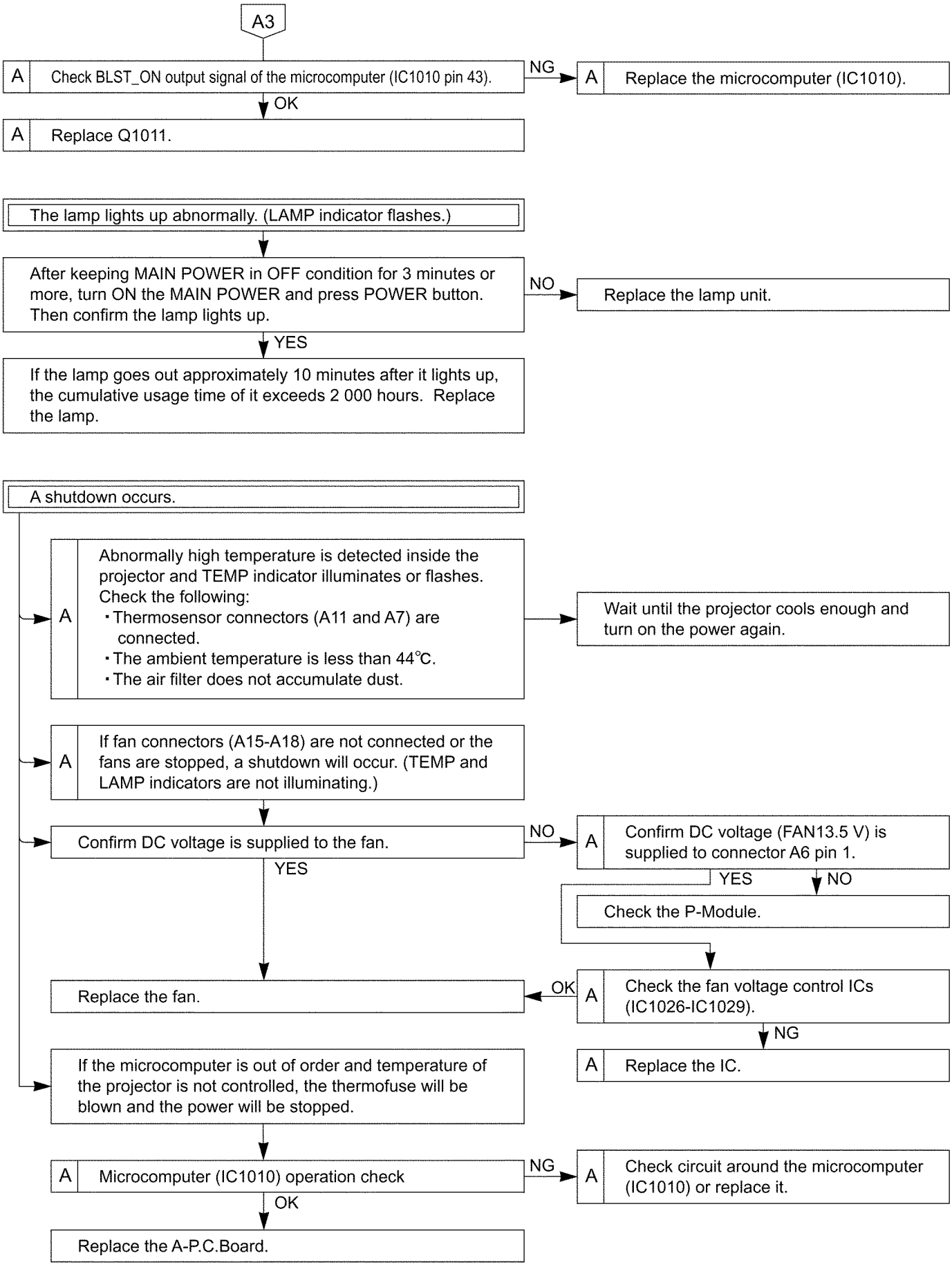
- If replacing A-P.C.Board (assembly), read the ROM data from the old P.C.Board and write it in the new one according to the section 7.4. "Software for Adjustment". At this time, if the readout from the old P.C.Board does not succeed, remove IC1061 and IC1063 from the old P.C.Board and install them on the new one.
  Then, execute the self-check according to the chapter 3. "Self-Check Mode", and confirm "G SAVED" and "U SAVED" display "OK".
- If replacing A-P.C.Board (assembly), minimize the flicker according to the chapter 4. "Flicker Adjustment Mode".
- If replacing A-P.C.Board (assembly), adjust RGB Input Level according to the chapter 7.6. "Input Level Adjustment".

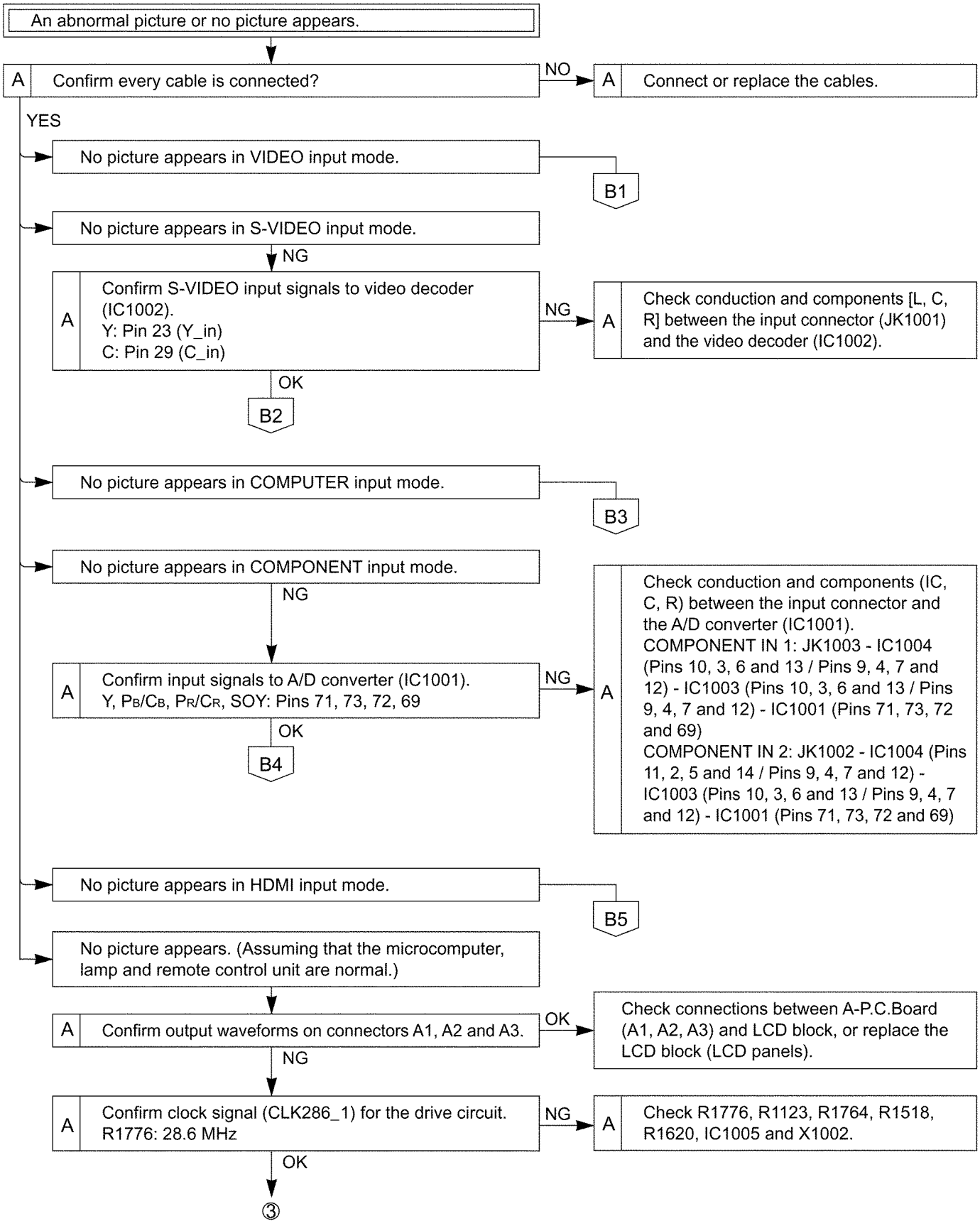


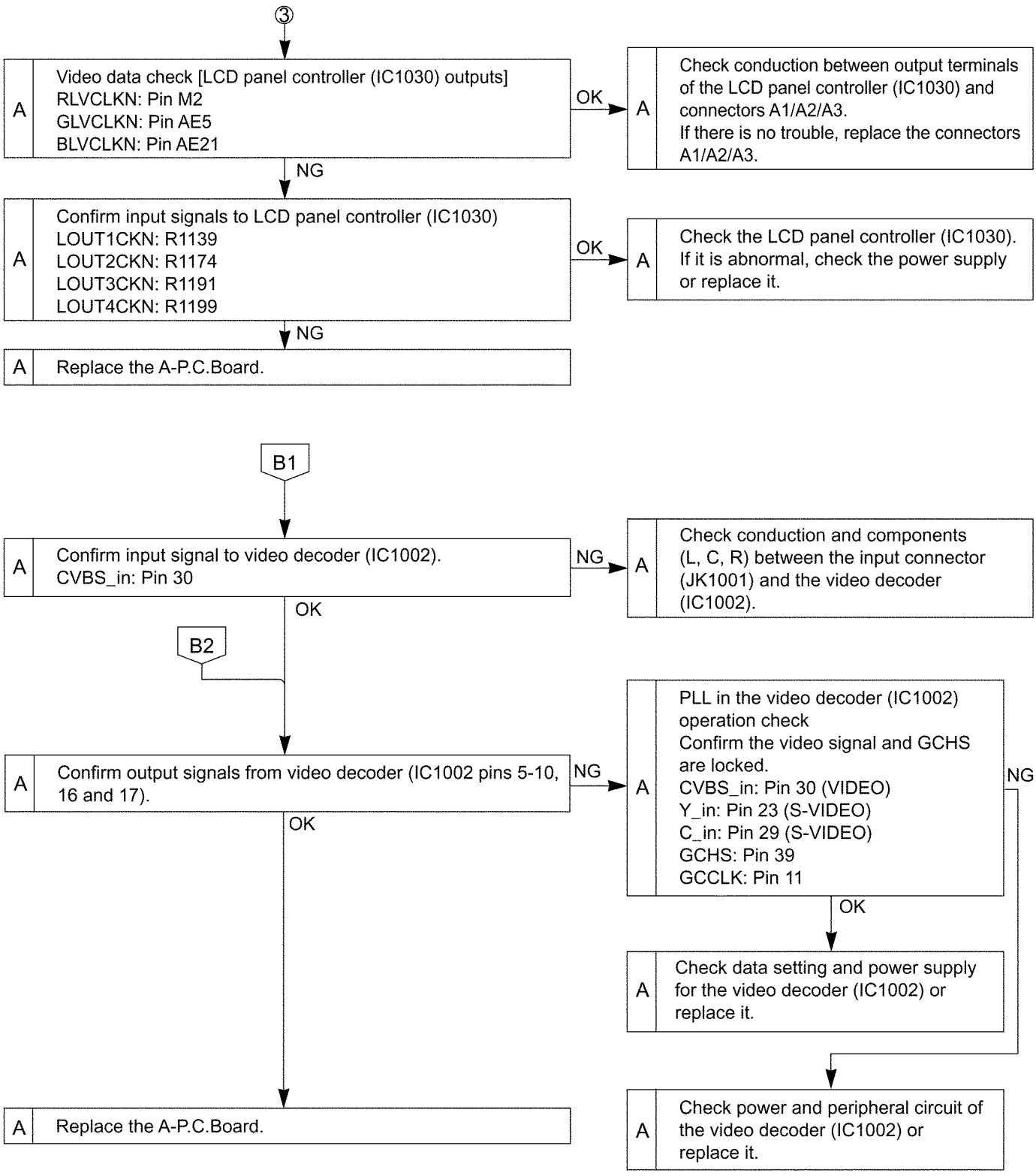

The projector does not change from standby mode to an operating mode. (The power indicator does not change from red to green.)
Confirm every connector (especially, A6) is connected and the lamp unit cover is installed properly.
NO
Connect the connectors or install the cover properly.
YES
A
Disconnect the connector A6, confirm no short circuit has occurred in the terminals below:
1-2, 3-4, 5-6, 8-9, 11-12, 13-12
YES
A
A short circuit has occurred in terminals 1 (FAN14 V) - 2: Check IC1026-IC1029.
A short circuit has occurred in terminals 3 (+16 V) - 4: Check L1014, C1258, IC1034 and C1190.
A short circuit has occurred in terminals 5 (+6 V) - 6: Check C1359, L1097, IC1100, L1002, IC1015 and C1006.
A short circuit has occurred in terminals 8 (3.3 V) - 9: Check C1361, L1112, C1182, L1109, C1178, L1117, L1105, IC1146, L1106, L1046, L1138, IC1033, L1035, IC1066, L1033, L1111, L1015, L1016, IC1123, IC1124, IC1111, L1007, L1009, L1004, IC1001, L1005, IC1009, L1062, IC1067, L1045, L1038, L1141, L1140 and L1139.
A short circuit has occurred in terminals 11 (6 V) - 12: Check C1360, L1113, L1047, IC1150 and IC1151.
A short circuit has occurred in terminals 13 (MAIN/STB) - 12: Check R1249, C1126, Q1008 and R1252.
NO
A
Connector A6 pin 15 is LOW (0 V).
NO
Check the power supply (90 V - 264 V AC).
Check connection of the connector A6.
YES
A
Connector A6 pin 13 changes from LOW to HIGH.
NO
A1
YES
①

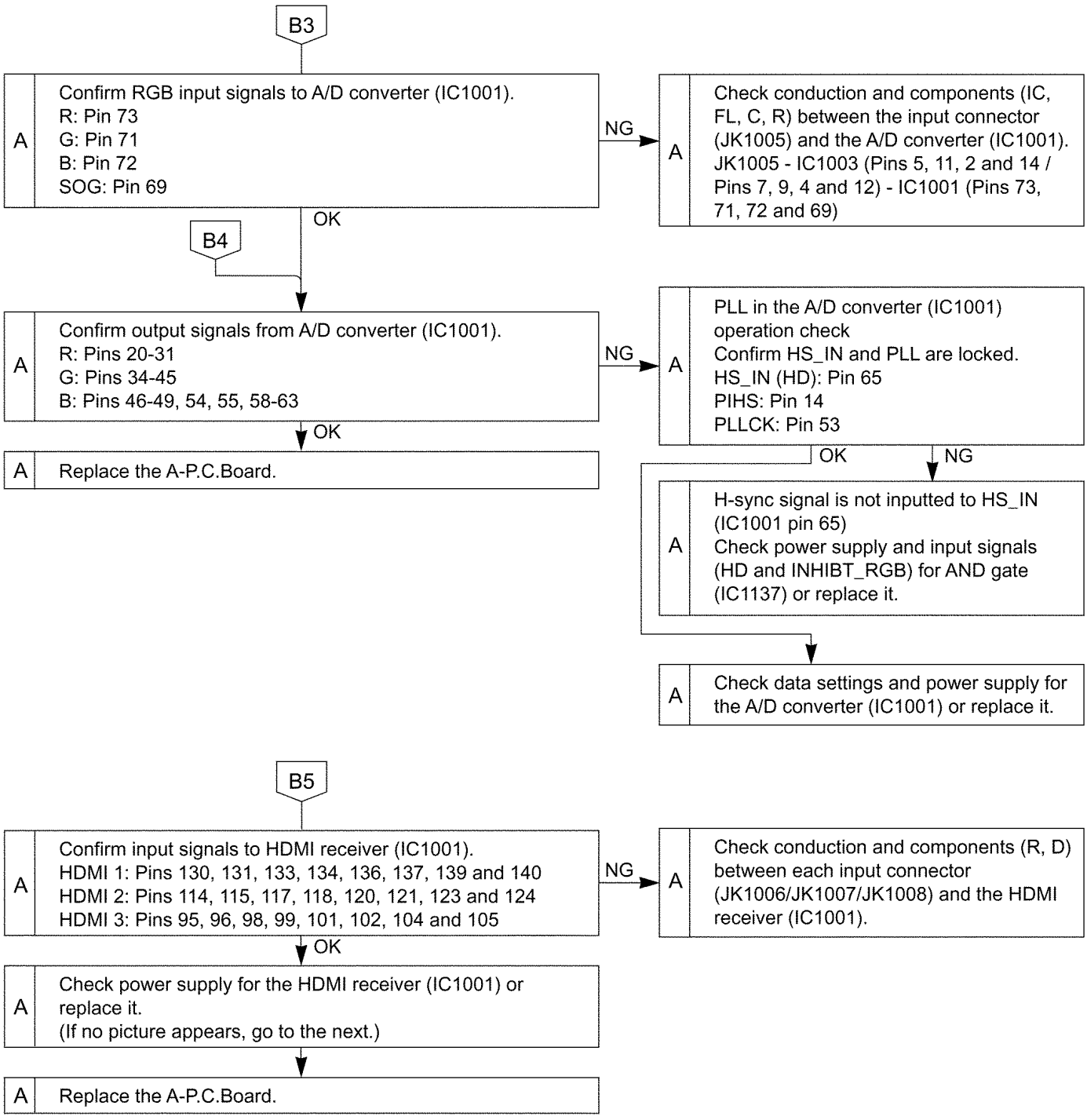

①
Replace the P-Module, then confirm the projector becomes standby mode.
YES
END
②
NO
Replace the Q-Module, then confirm the projector becomes standby mode.
YES
NO
OK
B
Confirm resistance values between G (positive) and S (negative) of MOS-FETs (Q9606, Q9607, Q9610 and Q9611) are as below.
Q9606, Q9610: 13-18 kΩ
Q9607, Q9611: Approx. Several kΩ
NO
B
Replace MOS-FETs (Q9606, Q9607, Q9610 and Q9611), that the resistance is less than the specified value, then confirm again the resistance values.
NG
YES
B
Confirm resistance values between D (positive) and S (negative) of Q9603 and Q9614 are hundreds kiloohm or more.
NO
B
Replace Q9603 and/or Q9614, and check R9601.
YES
B
Confirm components D9604-D9609, D9611, D9612, Q9604, Q9605, Q9608 and Q9609 are normal (no damage).
NO
B
Replace every damaged component.
YES
B
Confirm resistance values between the terminals of ICs (IC9602 and IC9603) below are 3 kΩ or more.
6 (positive) - 7 (negative)
3 (positive) - 4 (negative)
NO
B
Confirm components D9616-D9629 are normal.
NO
YES
YES
B
Replace IC9602/IC9603.
B
Replace the B-Module.
B
Replace every abnormal component.

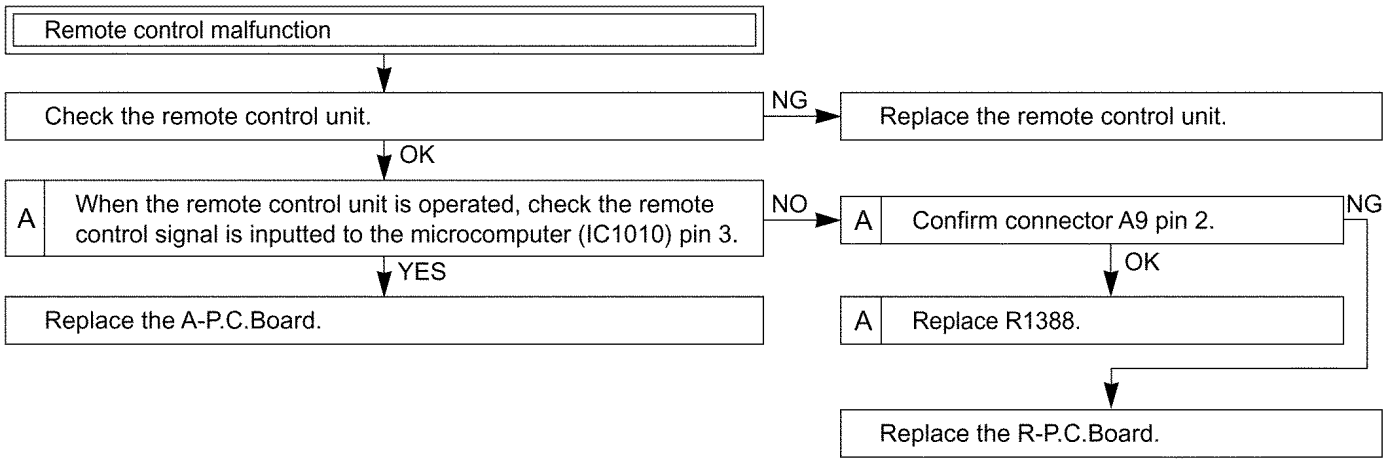

No lamp lights up. (LAMP indicator illuminates.)
Confirm every connector and the lamp unit are connected properly, and the lamp unit cover is installed.
At the same time, confirm the lamp unit fixing screws are tightened.
NO
Connect the connectors or install the cover properly.
YES
When switching from standby mode to an operating mode, every fan is rotated.
NO
Check every fan connector. If the connection is properly and the fan is not rotated, replace it. Then confirm the lamp lights up. (If not, go to the next.)
YES
Confirm every thermosensor is normal.
NO
Replace abnormal thermosensor, then confirm the lamp lights up. (If not, go to the next.)
YES
After keeping MAIN POWER in OFF condition for 3 minutes or more, turn ON the MAIN POWER and press POWER button. Confirm the ballast to generate a high-voltage pulse train and emits a sparking sound.
NO
A
When pressing the POWER button, connector A6 pin 13 changes from LOW to HIGH.
YES
NO
A2
YES
P
Confirm that no short circuit has occurred between connector P2 pins 1 and 3. (Normally, connector P2 pin 1 outputs 390 V ±20 V DC.)
YES
A
When pressing the POWER button, connector A4 pin 2 changes from LOW to HIGH.
NO
A3
NO
P
Confirm that no short circuit has occurred between connector P2 pins 4 and 3. (Normally, connector P2 pin 4 outputs 15 V ±1 V DC.)
YES
NO
①
②
A1
Microcomputer (IC1010) operation check in the standby mode
YES
A
POWER key check
Check conduction between connector A8 pin 2 (ON/OFF) and the microcomputer (IC1010) pin 104.
NG
A
Replace R1329.
OK
A2
A
Check MAIN/STB output signal of the microcomputer (IC1010 pin 85).
NG
A
Replace the microcomputer (IC1010).
OK
A
Replace Q1008.


A3
A
Check BLST_ON output signal of the microcomputer (IC1010 pin 43).
NG
A
Replace the microcomputer (IC1010).
OK
A
Replace Q1011.
The lamp lights up abnormally. (LAMP indicator flashes.)
After keeping MAIN POWER in OFF condition for 3 minutes or more, turn ON the MAIN POWER and press POWER button. Then confirm the lamp lights up.
NO
Replace the lamp unit.
YES
If the lamp goes out approximately 10 minutes after it lights up, the cumulative usage time of it exceeds 2 000 hours. Replace the lamp.
A shutdown occurs.
A
Abnormally high temperature is detected inside the projector and TEMP indicator illuminates or flashes. Check the following:
・Thermosensor connectors (A11 and A7) are connected.
・The ambient temperature is less than 44℃.
・The air filter does not accumulate dust.
Wait until the projector cools enough and turn on the power again.
A
If fan connectors (A15-A18) are not connected or the fans are stopped, a shutdown will occur. (TEMP and LAMP indicators are not illuminating.)
Confirm DC voltage is supplied to the fan.
NO
A
Confirm DC voltage (FAN13.5 V) is supplied to connector A6 pin 1.
YES
YES
NO
Check the P-Module.
Replace the fan.
OK
A
Check the fan voltage control ICs (IC1026-IC1029).
NG
A
Replace the IC.
If the microcomputer is out of order and temperature of the projector is not controlled, the thermofuse will be blown and the power will be stopped.
A
Microcomputer (IC1010) operation check
NG
A
Check circuit around the microcomputer (IC1010) or replace it.
OK
Replace the A-P.C.Board.


An abnormal picture or no picture appears.
A
Confirm every cable is connected?
NO
A
Connect or replace the cables.
YES
No picture appears in VIDEO input mode.
B1
No picture appears in S-VIDEO input mode.
NG
A
Confirm S-VIDEO input signals to video decoder (IC1002).
Y: Pin 23 (Y_in)
C: Pin 29 (C_in)
NG
A
Check conduction and components [L, C, R] between the input connector (JK1001) and the video decoder (IC1002).
OK
B2
No picture appears in COMPUTER input mode.
B3
No picture appears in COMPONENT input mode.
NG
A
Confirm input signals to A/D converter (IC1001).
Y, PB/CB, PR/CR, SOY: Pins 71, 73, 72, 69
NG
A
Check conduction and components (IC, C, R) between the input connector and the A/D converter (IC1001).
COMPONENT IN 1: JK1003 - IC1004 (Pins 10, 3, 6 and 13 / Pins 9, 4, 7 and 12) - IC1003 (Pins 10, 3, 6 and 13 / Pins 9, 4, 7 and 12) - IC1001 (Pins 71, 73, 72 and 69)
COMPONENT IN 2: JK1002 - IC1004 (Pins 11, 2, 5 and 14 / Pins 9, 4, 7 and 12) - IC1003 (Pins 10, 3, 6 and 13 / Pins 9, 4, 7 and 12) - IC1001 (Pins 71, 73, 72 and 69)
OK
B4
No picture appears in HDMI input mode.
B5
No picture appears. (Assuming that the microcomputer, lamp and remote control unit are normal.)
A
Confirm output waveforms on connectors A1, A2 and A3.
OK
Check connections between A-P.C.Board (A1, A2, A3) and LCD block, or replace the LCD block (LCD panels).
NG
A
Confirm clock signal (CLK286_1) for the drive circuit.
R1776: 28.6 MHz
NG
A
Check R1776, R1123, R1764, R1518, R1620, IC1005 and X1002.
OK
③


③
A
Video data check [LCD panel controller (IC1030) outputs]
RLVCLKN: Pin M2
GLVCLKN: Pin AE5
BLVCLKN: Pin AE21
OK
A
Check conduction between output terminals of the LCD panel controller (IC1030) and connectors A1/A2/A3.
If there is no trouble, replace the connectors A1/A2/A3.
NG
A
Confirm input signals to LCD panel controller (IC1030)
LOUT1CKN: R1139
LOUT2CKN: R1174
LOUT3CKN: R1191
LOUT4CKN: R1199
OK
A
Check the LCD panel controller (IC1030).
If it is abnormal, check the power supply or replace it.
NG
A
Replace the A-P.C.Board.
B1
A
Confirm input signal to video decoder (IC1002).
CVBS_in: Pin 30
NG
A
Check conduction and components (L, C, R) between the input connector (JK1001) and the video decoder (IC1002).
OK
B2
A
Confirm output signals from video decoder (IC1002 pins 5-10, 16 and 17).
NG
A
PLL in the video decoder (IC1002) operation check
Confirm the video signal and GCHS are locked.
CVBS_in: Pin 30 (VIDEO)
Y_in: Pin 23 (S-VIDEO)
C_in: Pin 29 (S-VIDEO)
GCHS: Pin 39
GCCLK: Pin 11
NG
OK
A
Check data setting and power supply for the video decoder (IC1002) or replace it.
OK
A
Replace the A-P.C.Board.
A
Check power and peripheral circuit of the video decoder (IC1002) or replace it.

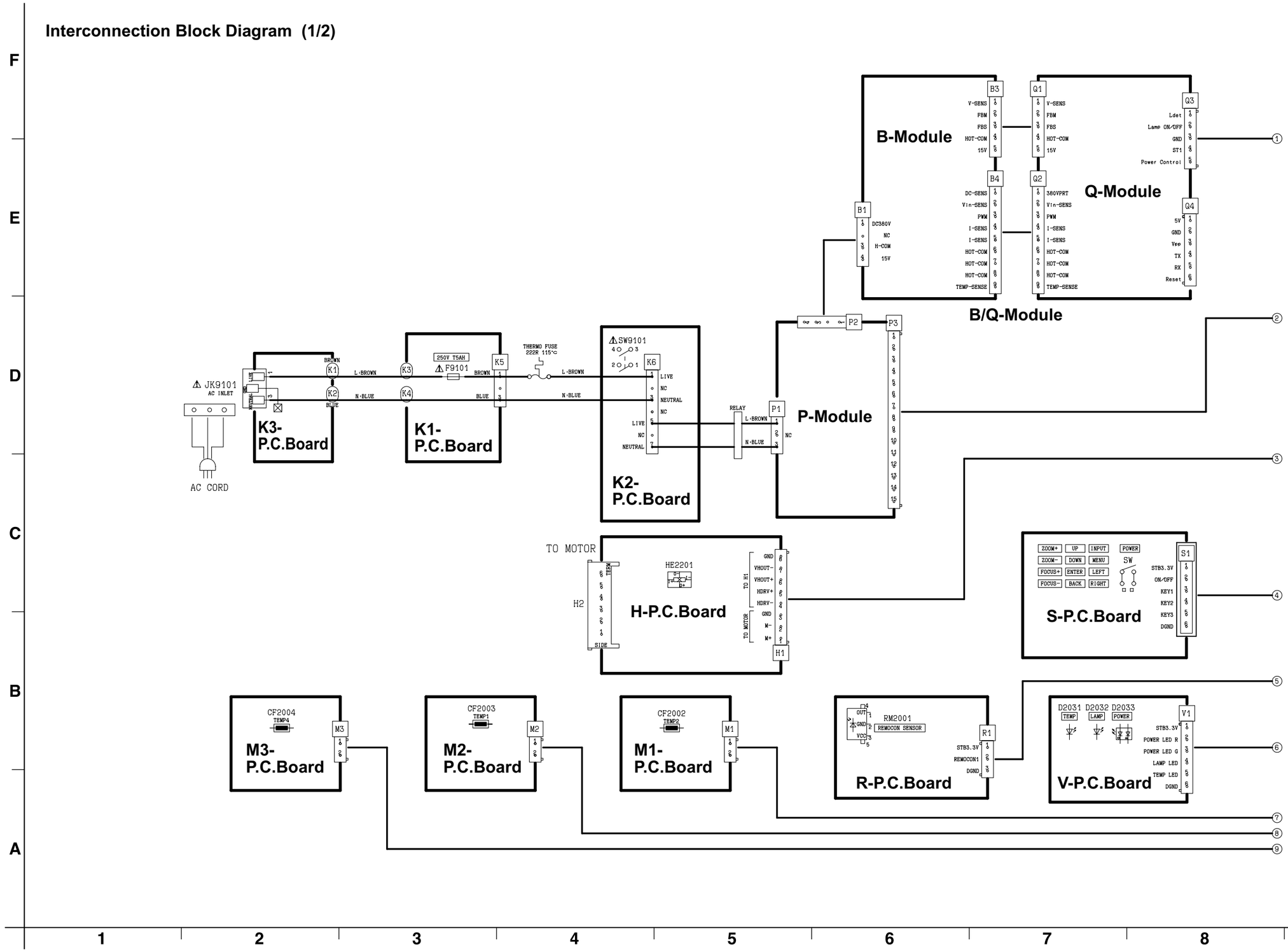

B3
A
Confirm RGB input signals to A/D converter (IC1001).
R: Pin 73
G: Pin 71
B: Pin 72
SOG: Pin 69
NG
A
Check conduction and components (IC, FL, C, R) between the input connector (JK1005) and the A/D converter (IC1001).
JK1005 - IC1003 (Pins 5, 11, 2 and 14 / Pins 7, 9, 4 and 12) - IC1001 (Pins 73, 71, 72 and 69)
OK
B4
A
Confirm output signals from A/D converter (IC1001).
R: Pins 20-31
G: Pins 34-45
B: Pins 46-49, 54, 55, 58-63
NG
A
PLL in the A/D converter (IC1001) operation check
Confirm HS_IN and PLL are locked.
HS_IN (HD): Pin 65
PIHS: Pin 14
PLLCK: Pin 53
OK
NG
OK
A
Replace the A-P.C.Board.
A
H-sync signal is not inputted to HS_IN (IC1001 pin 65)
Check power supply and input signals (HD and INHIBT_RGB) for AND gate (IC1137) or replace it.
A
Check data settings and power supply for the A/D converter (IC1001) or replace it.
B5
A
Confirm input signals to HDMI receiver (IC1001).
HDMI 1: Pins 130, 131, 133, 134, 136, 137, 139 and 140
HDMI 2: Pins 114, 115, 117, 118, 120, 121, 123 and 124
HDMI 3: Pins 95, 96, 98, 99, 101, 102, 104 and 105
NG
A
Check conduction and components (R, D) between each input connector (JK1006/JK1007/JK1008) and the HDMI receiver (IC1001).
OK
A
Check power supply for the HDMI receiver (IC1001) or replace it.
(If no picture appears, go to the next.)
A
Replace the A-P.C.Board.


Remote control malfunction
Check the remote control unit.
NG
Replace the remote control unit.
OK
A
When the remote control unit is operated, check the remote control signal is inputted to the microcomputer (IC1010) pin 3.
NO
A
Confirm connector A9 pin 2.
NG
OK
YES
Replace the A-P.C.Board.
A
Replace R1388.
Replace the R-P.C.Board.

9 Interconnection Block Diagram

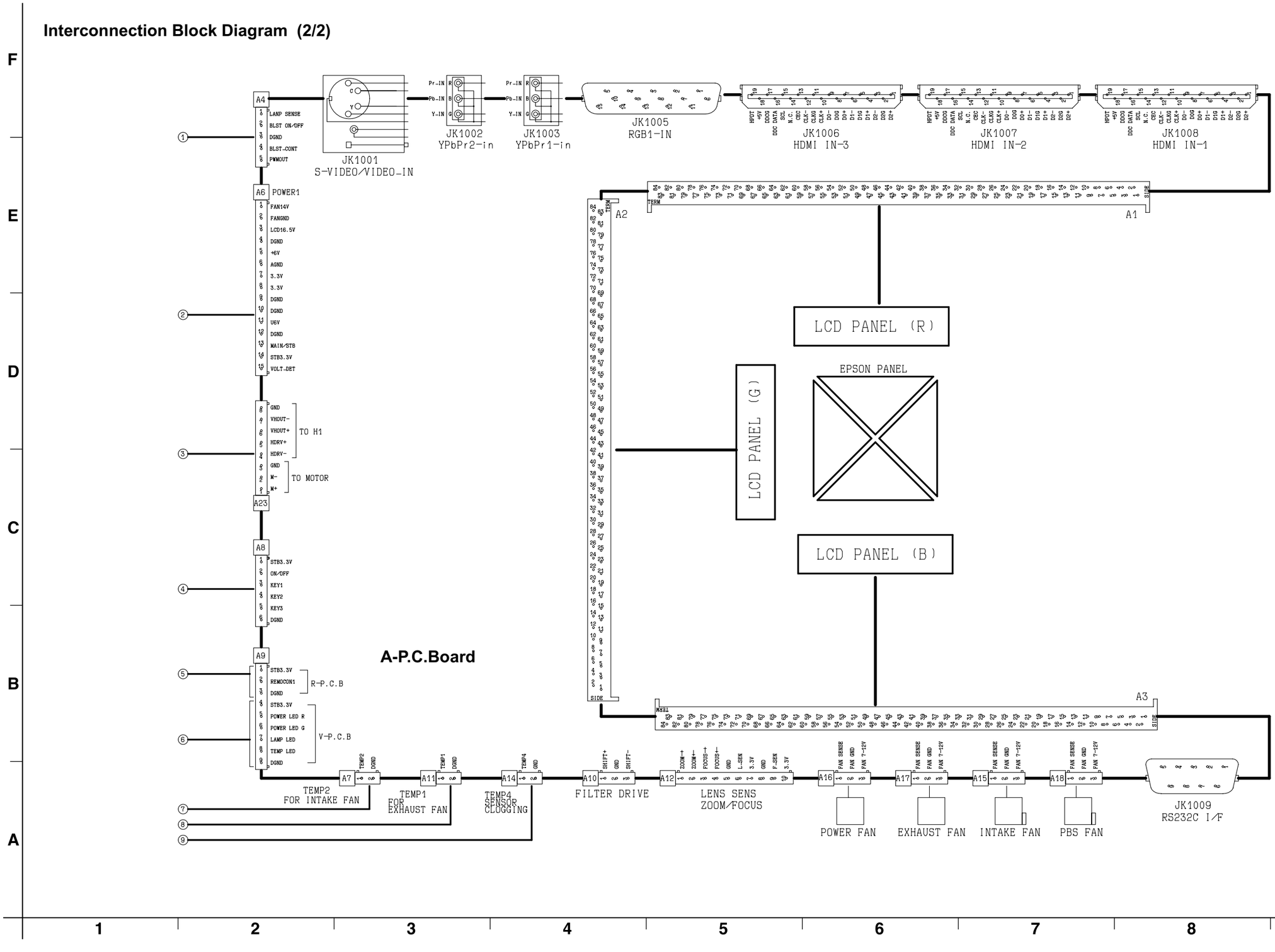
9.1. Interconnection Block Diagram (1/2)

Interconnection Block Diagram (1/2)



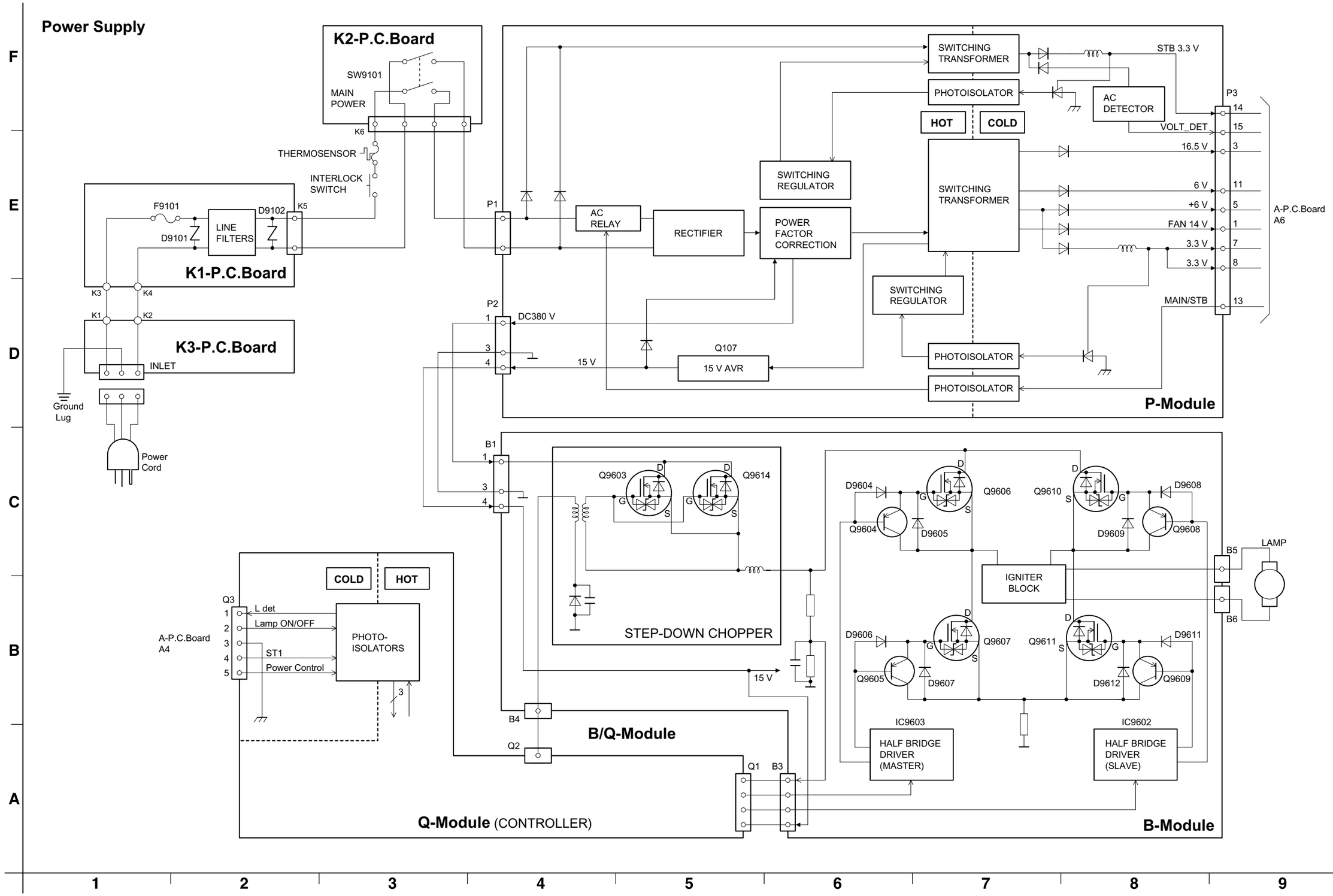
9.2. Interconnection Block Diagram (2/2)

Interconnection Block Diagram (2/2)

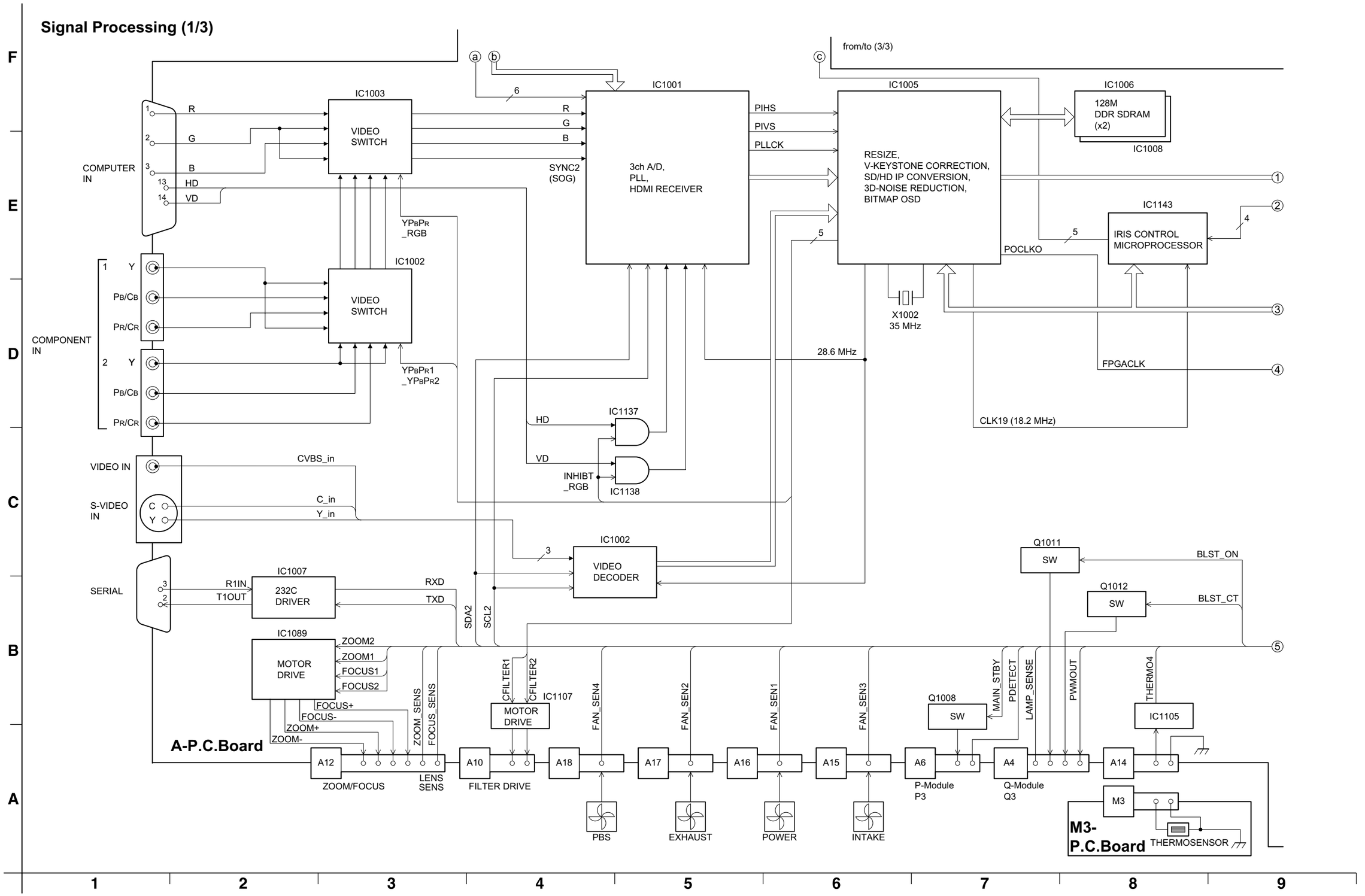


10 Block Diagram

10.1. Power Supply

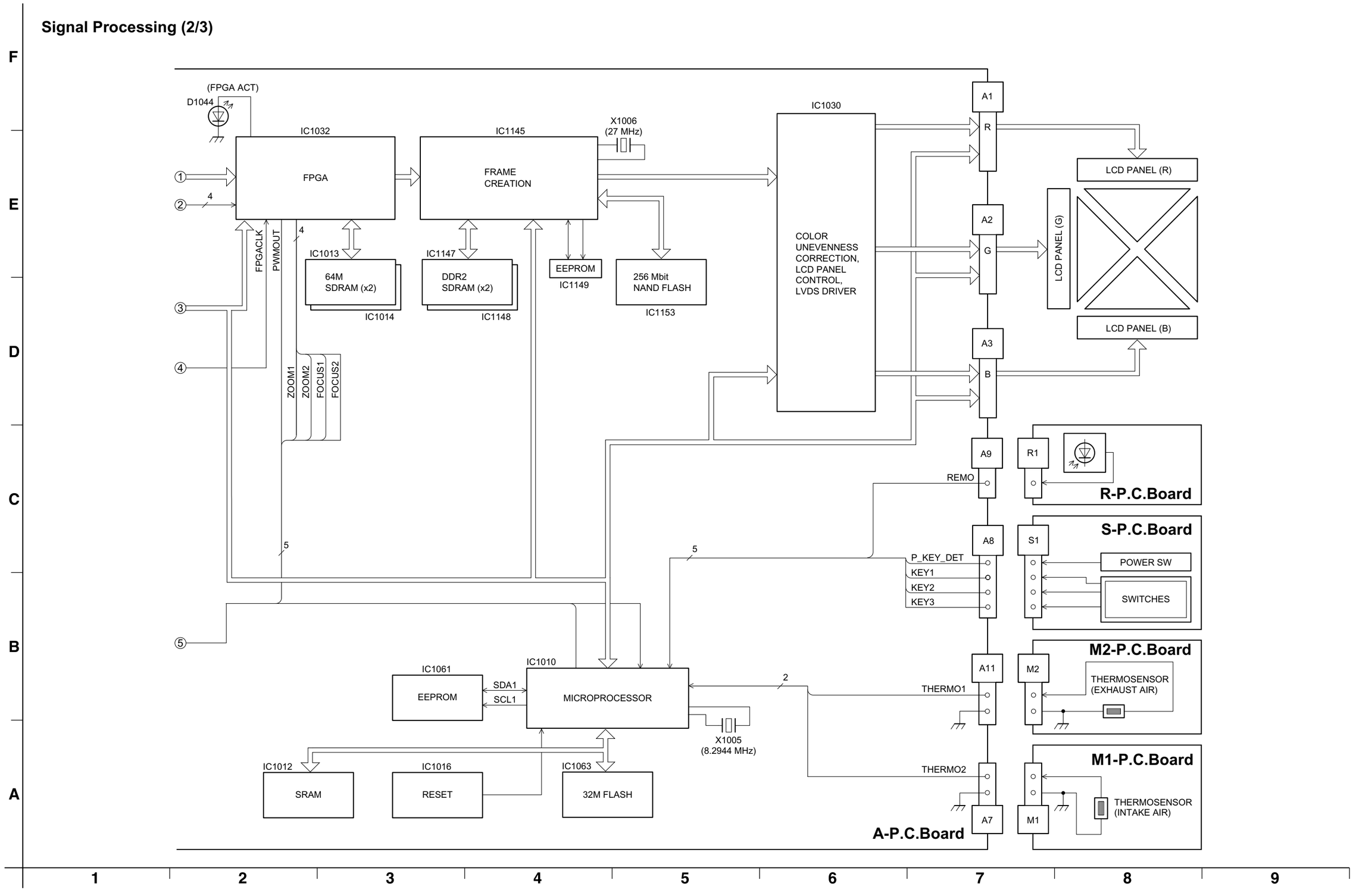


10.2. Signal Processing (1/3)

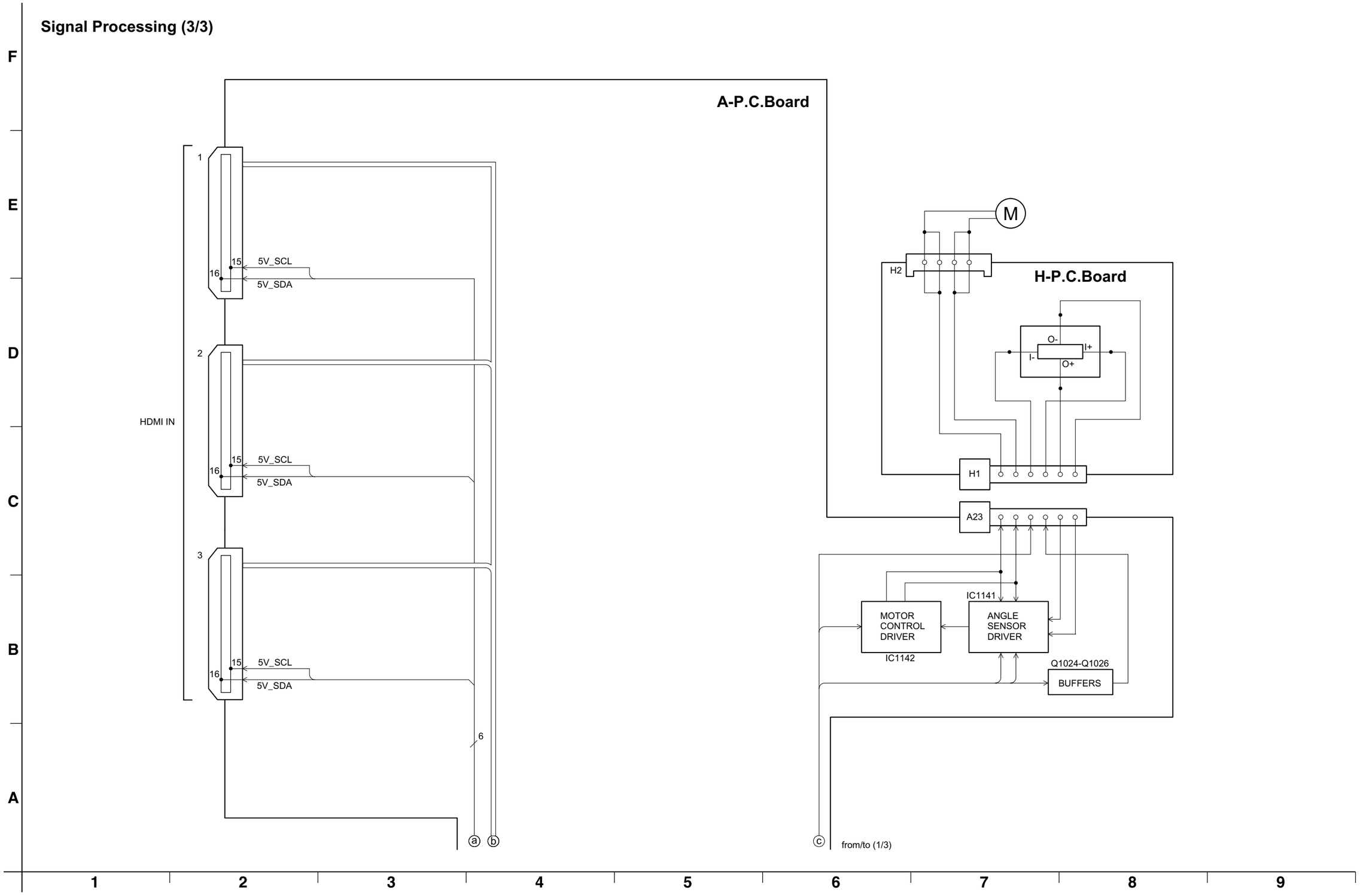


10.3. Signal Processing (2/3)

Signal Processing (2/3)



10.4. Signal Processing (3/3)



11 Schematic Diagram

Important Safety Notice

Components identified by the international symbol ⚠ have special characteristics important for safety. When replacing any of these components, use only the manufacturer's specified ones.

Notes:

1. **Resistor**

   All the resistors are carbon 1/4W resistors, unless marked as follows: The unit of resistance is an OHM [Ω] (K=1 000 M=1 000 000).

   ○ : Nonflammable
   ⊠ : Metal Oxide
   △ : Solid
   ◎ : Metal Film
   ⊠ : Wire Wound
   ⊗ : Fuse

2. **Capacitor**

   ⊗ : Temperature Compensation
   +⋕− : Electrolytic
   Ⓜ : Polyester
   NP⋕ : Bipolar
   ⓜ : Metalized Polyester
   Ⓣ : Dipped Tantalum
   ⊠ : Polypropylene
   Ⓩ : Z-Type

3. **Coil**

   The unit of inductance is a H, unless otherwise noted.

4. **Test Point**

   ● : Test Point

5. **Voltage Measurement**

   The voltage is measured by an electronic voltmeter receiving the colorbar signal when all the customer's controls are set to the standard condition.

6. **Color code for the links between diagrams and circuit boards**

From/To		To/From	Color code
Block diagram	⟷	Schematic diagram	Magenta
Schematic diagram	⟷	Schematic diagram	Green
Schematic diagram	⟷	Circuit boards	Yellow

7. **HOT and COLD indications**

   The power circuit board contains a circuit area using a separate power supply to isolate the ground connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the precautions below:

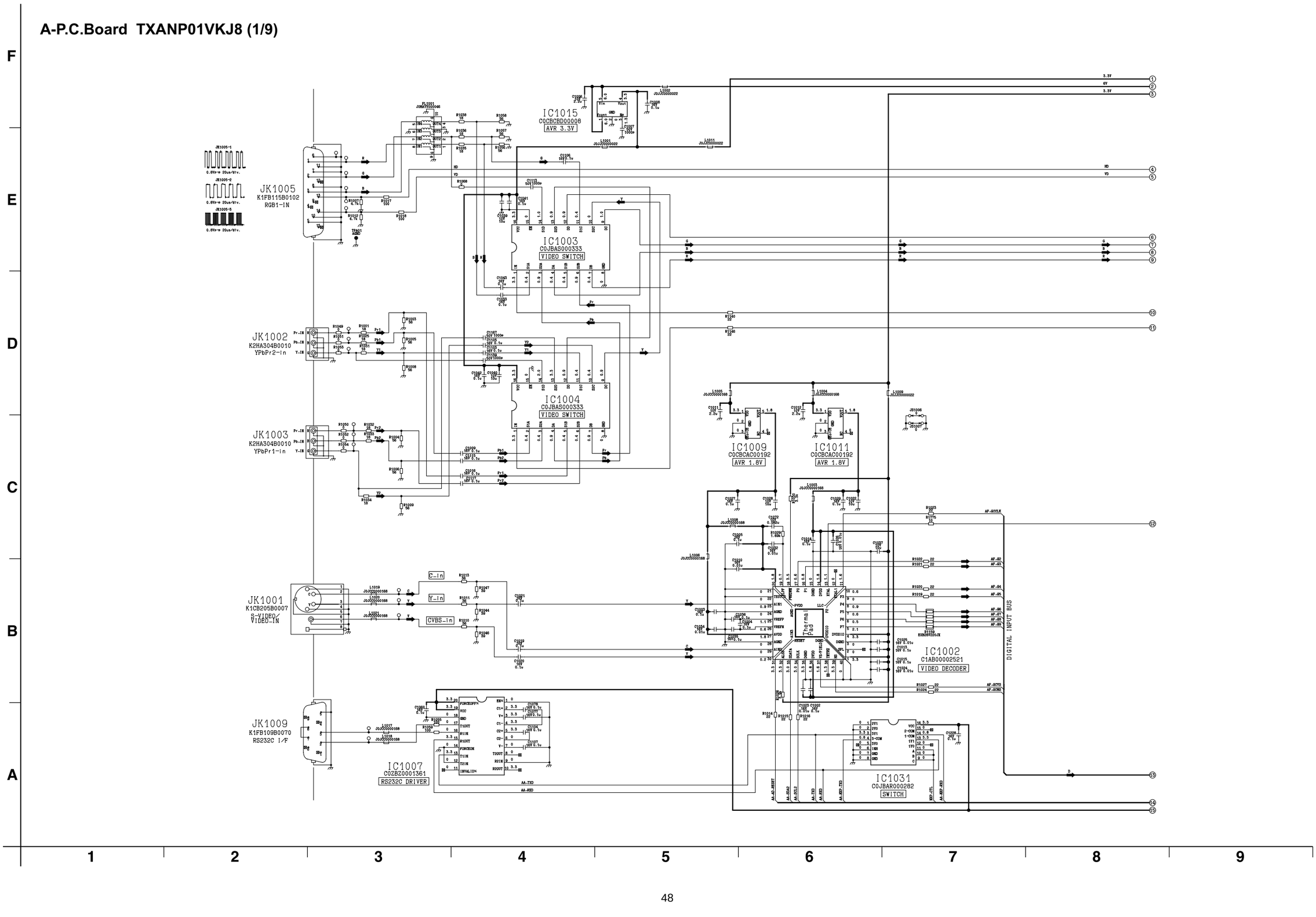
8. **This schematic diagram is the latest at the time of printing and the subject to change without notice.**

Precautions:

1. NEVER touch the HOT part or the HOT and COLD parts at the same time, or you may get an electric shock.
2. NEVER short-circuit the HOT and COLD circuits, or the fuse may blow and the parts may break.
3. NEVER connect an instrument such oscilloscope to the HOT and COLD circuit simultaneously, or the fuse may blow.Connect the ground of instruments to the ground of the circuit being measured.
4. MAKE SURE to unplug the power cord from the power outlet before removing the chassis.

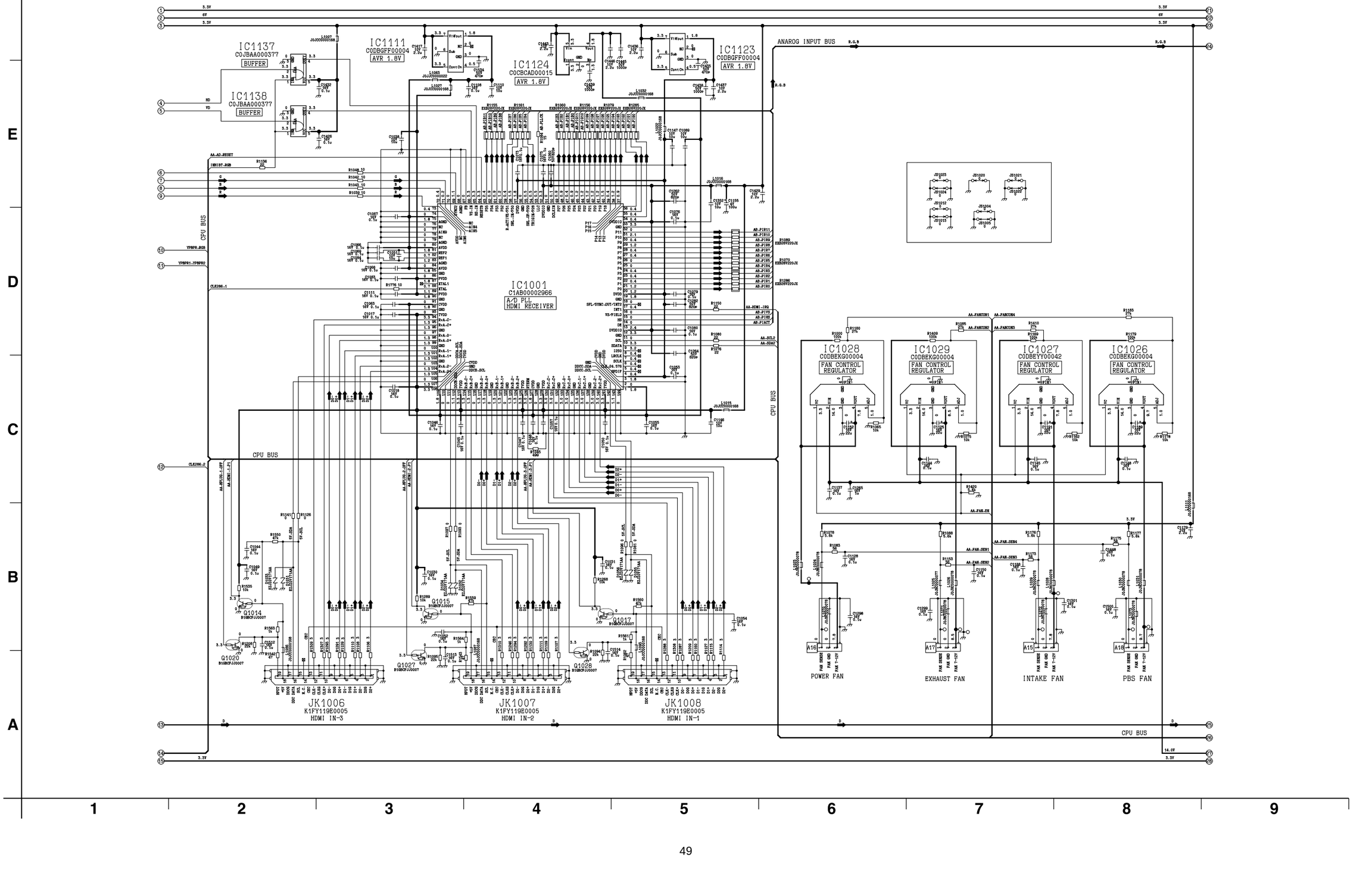
11.1. A-P.C.Board (1/9)

A-P.C.Board TXANP01VKJ8 (1/9)



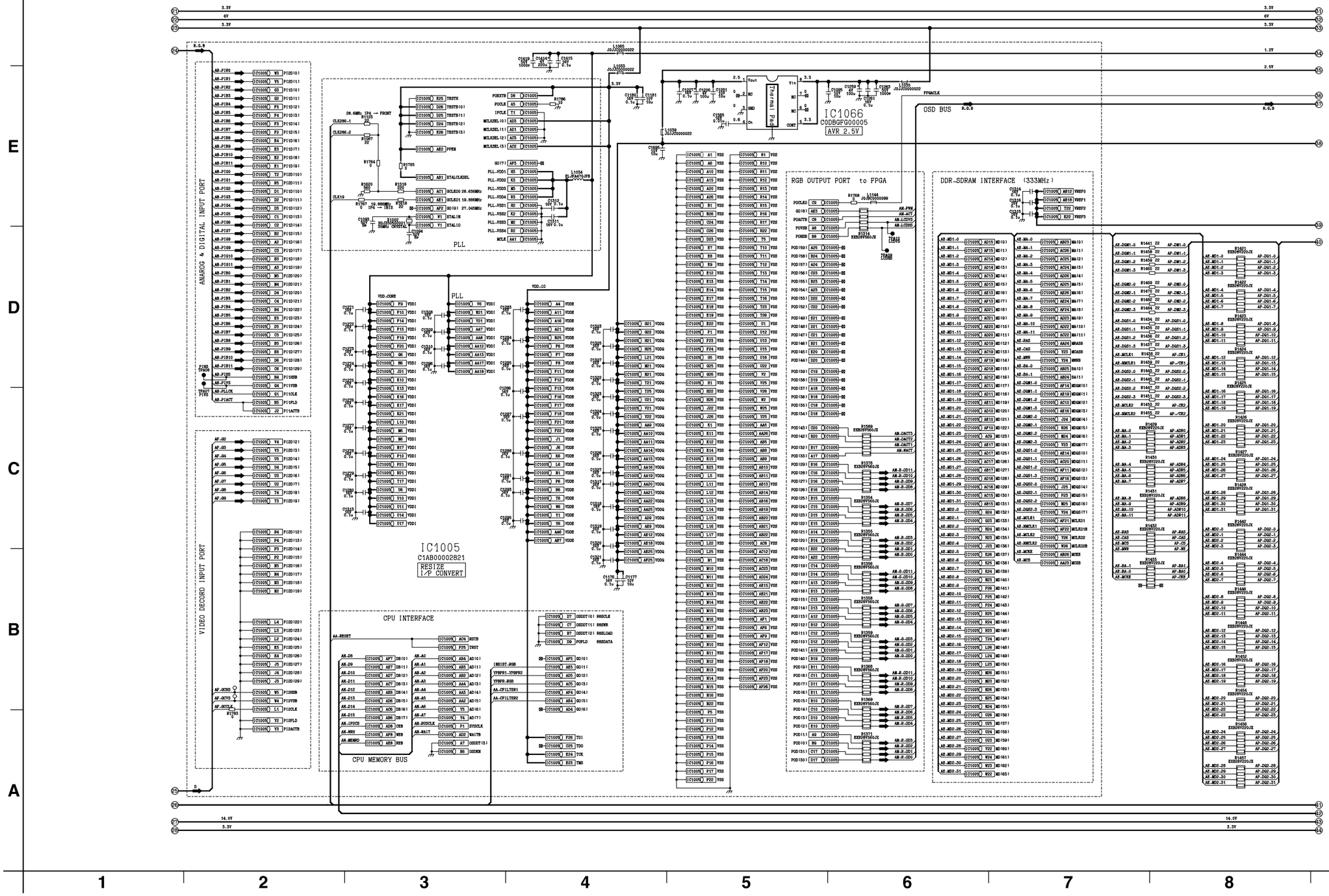
11.2. A-P.C.Board (2/9)

A-P.C.Board TXANP01VKJ8 (2/9)



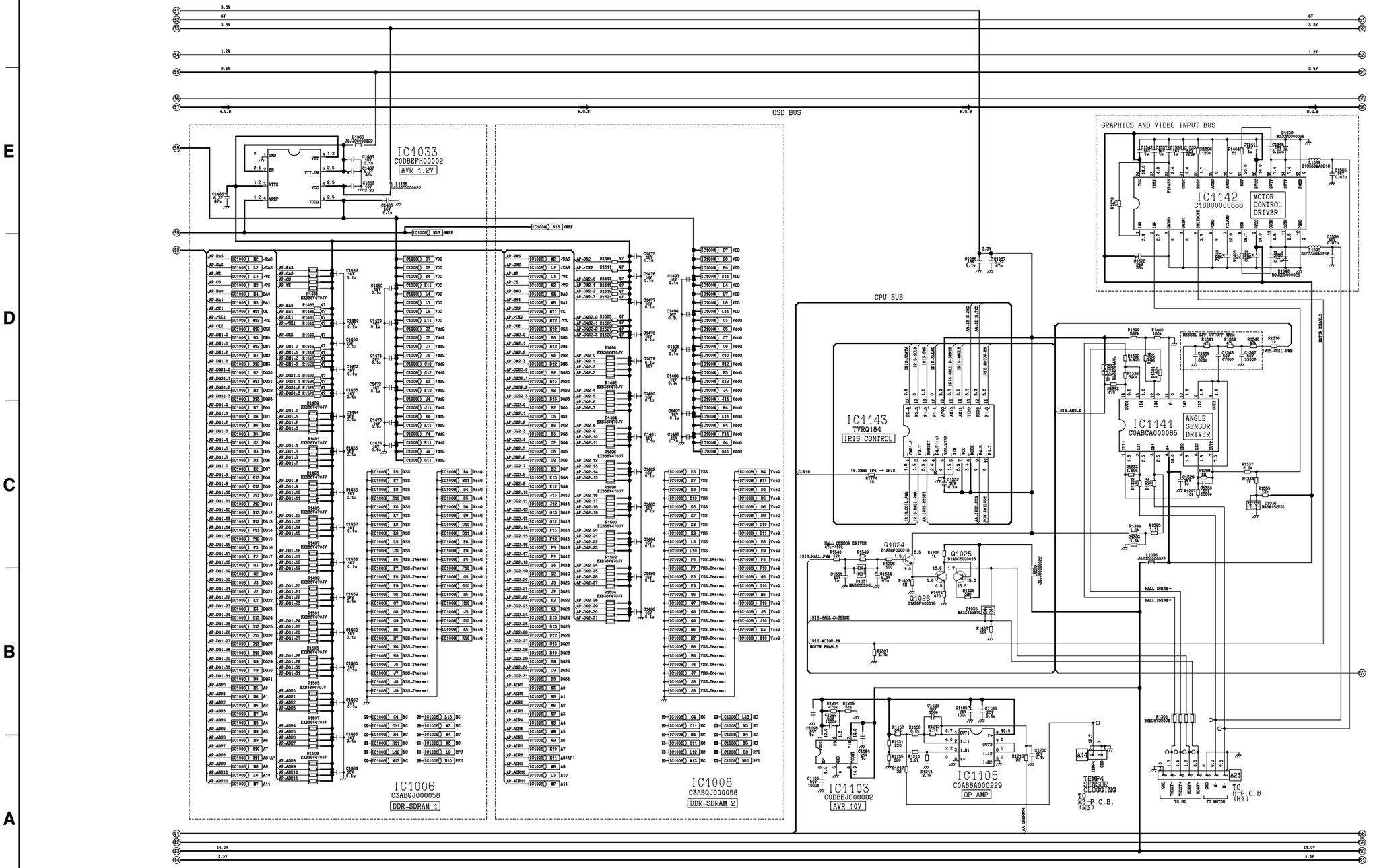
11.3. A-P.C.Board (3/9)

A-P.C.Board TXANP01VKJ8 (3/9)



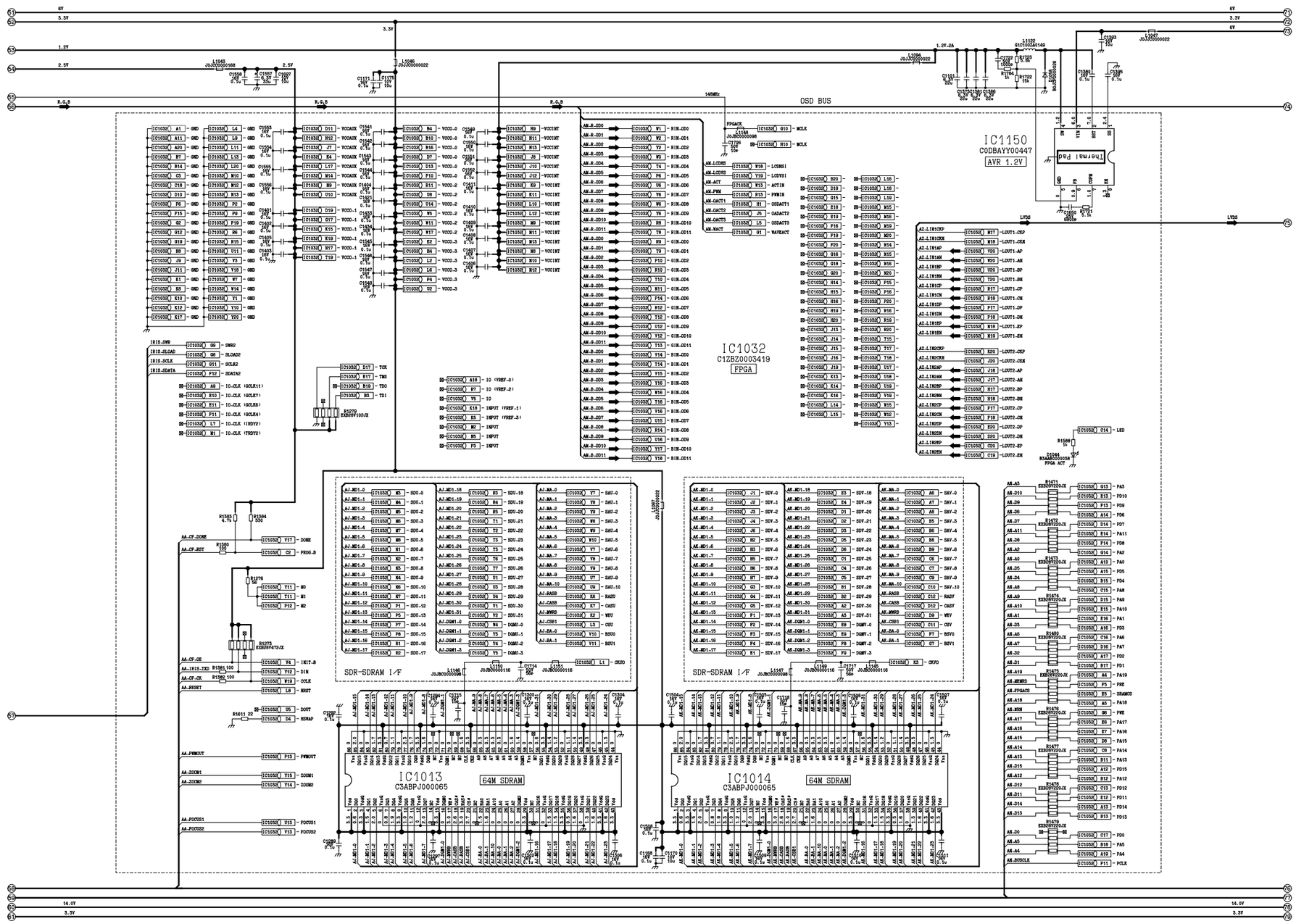
11.4. A-P.C.Board (4/9)

A-P.C.Board TXANP01VKJ8 (4/9)



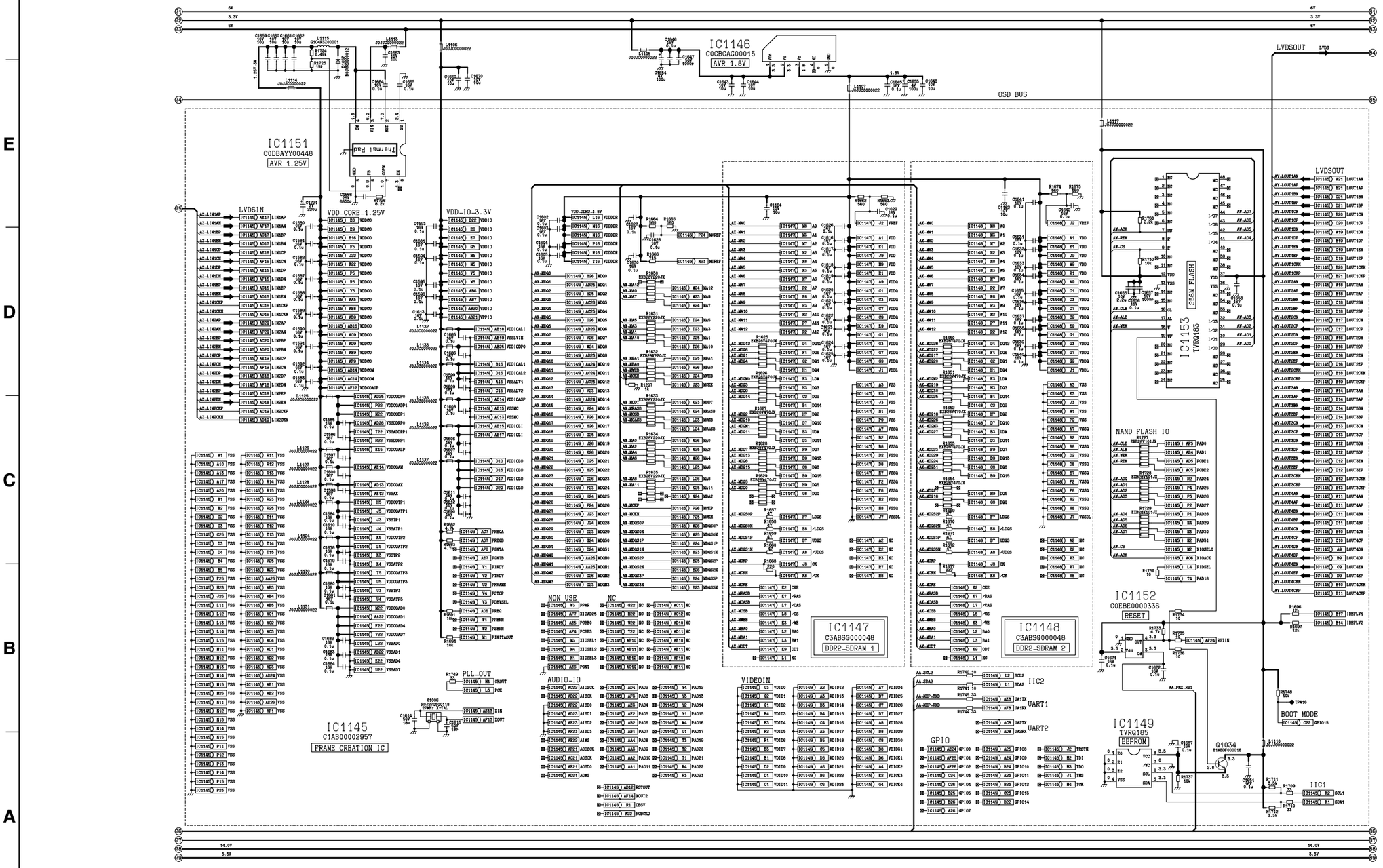
11.5. A-P.C.Board (5/9)

A-P.C.Board TXANP01VKJ8 (5/9)



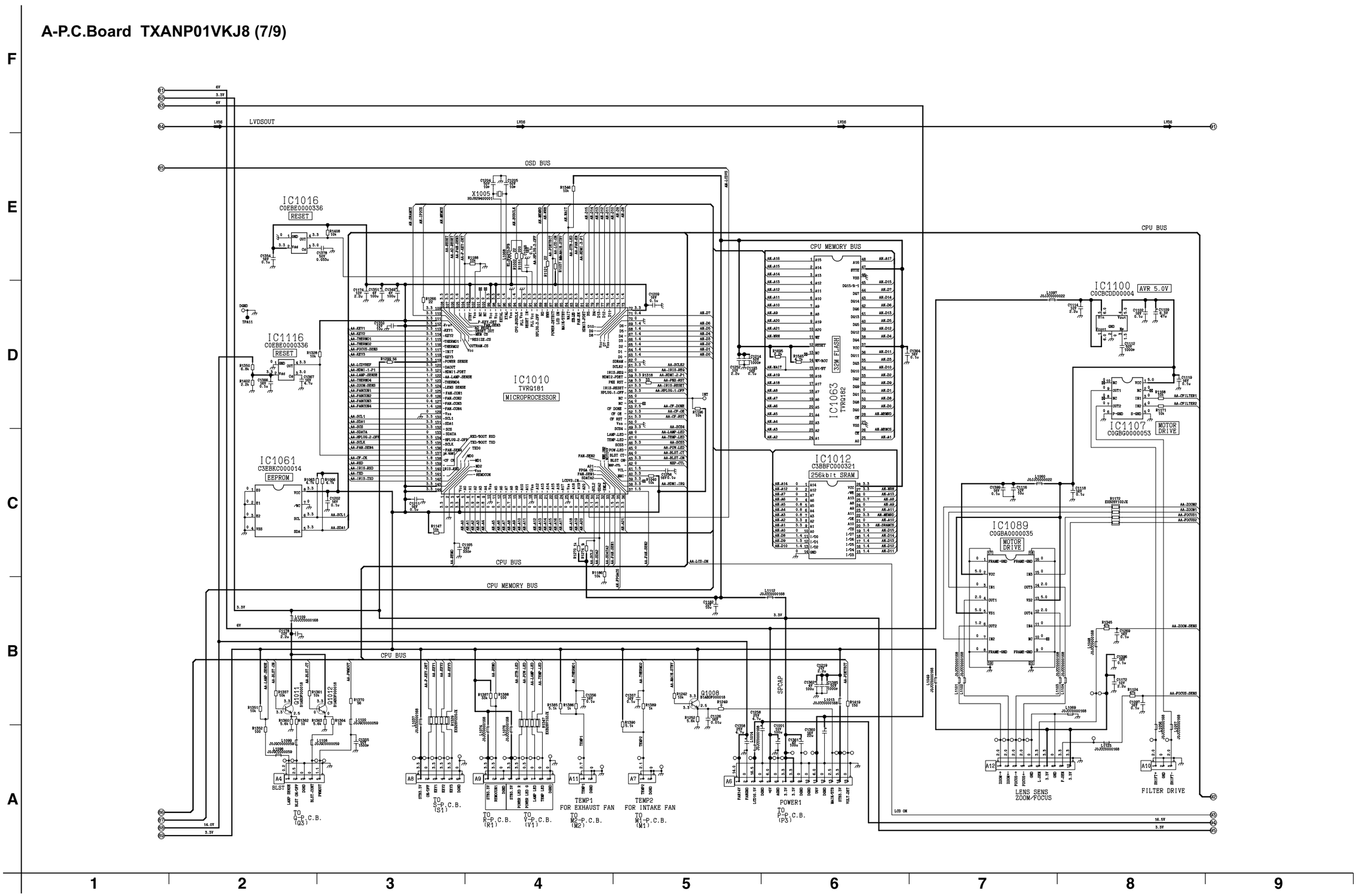
11.6. A-P.C.Board (6/9)

A-P.C.Board TXANP01VKJ8 (6/9)



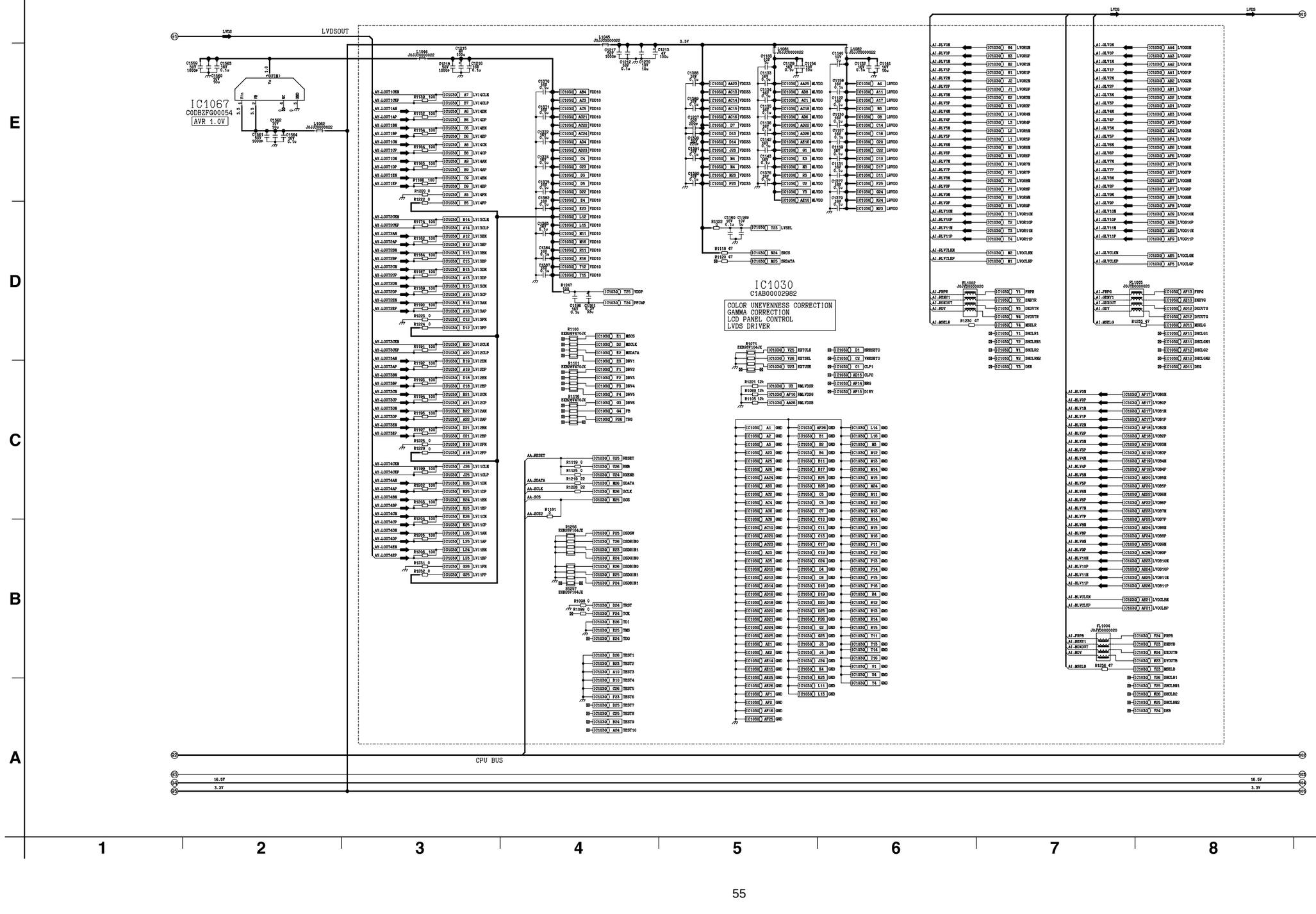
11.7. A-P.C.Board (7/9)

A-P.C.Board TXANP01VKJ8 (7/9)



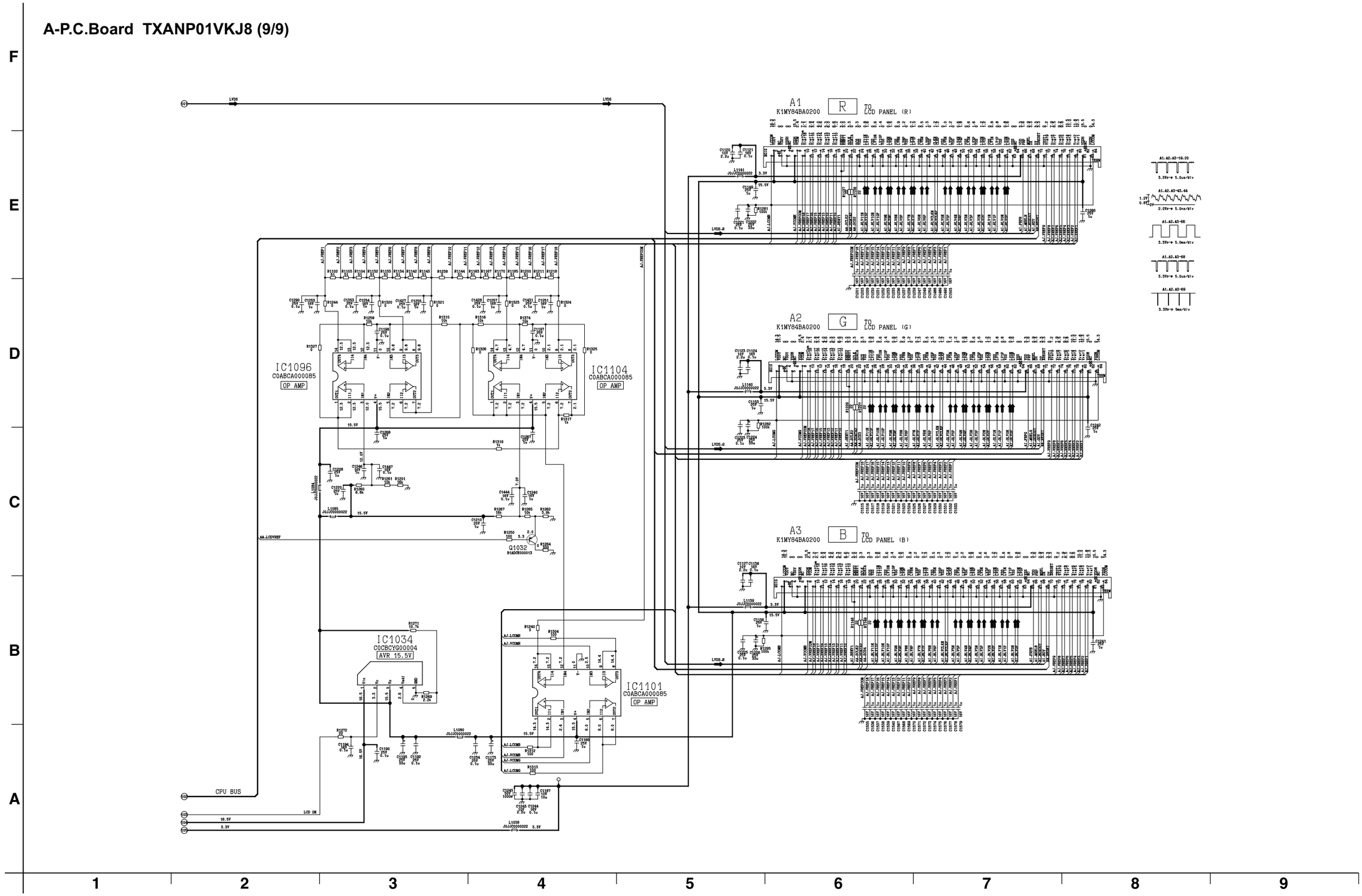
11.8. A-P.C.Board (8/9)

A-P.C.Board TXANP01VKJ8 (8/9)

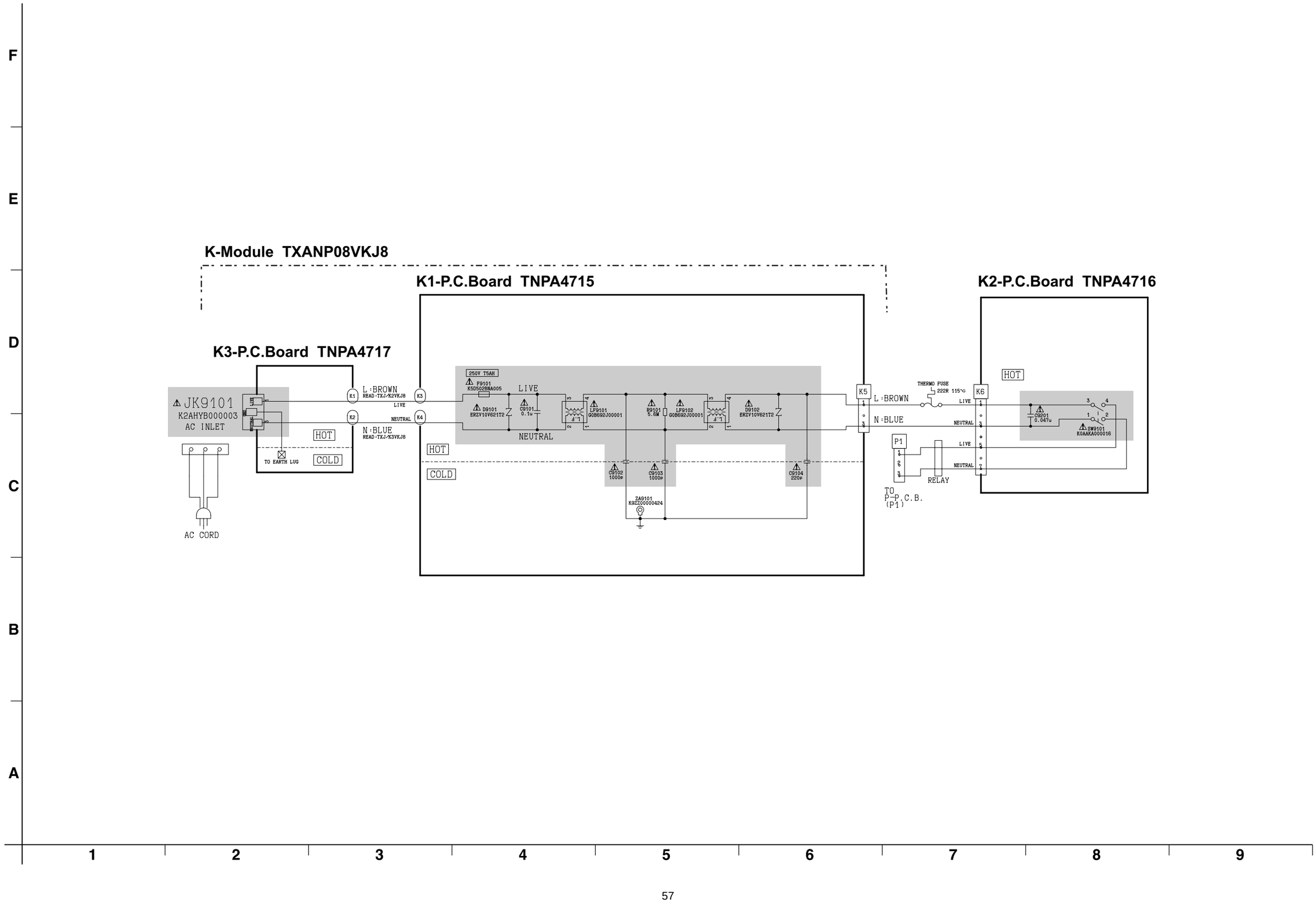


11.9. A-P.C.Board (9/9)

A-P.C.Board TXANP01VKJ8 (9/9)

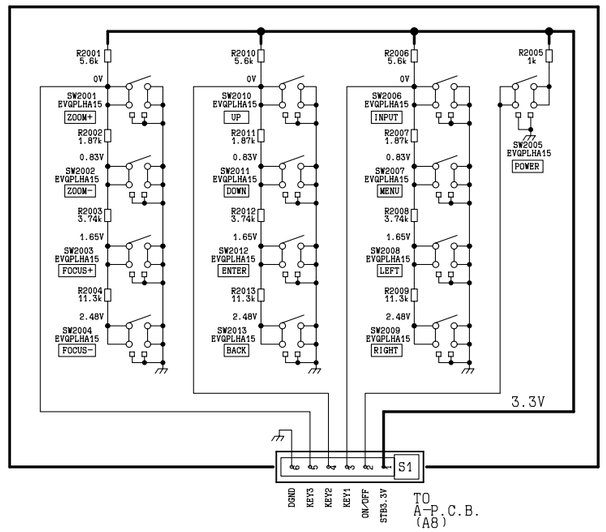


11.10. K1-P.C.Board, K2-P.C.Board, K3-P.C.Board

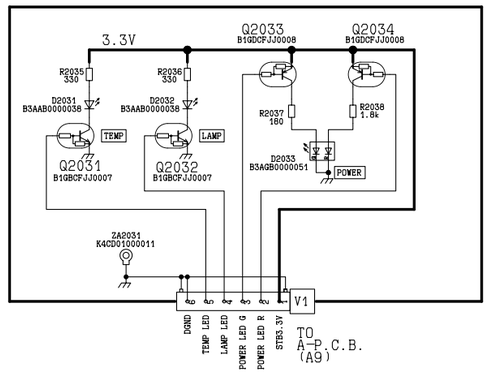


11.11. S-P.C.Board, R-P.C.Board, V-P.C.Board, H-P.C.Board

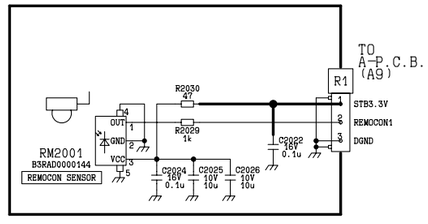
S-P.C.Board TNPA4720



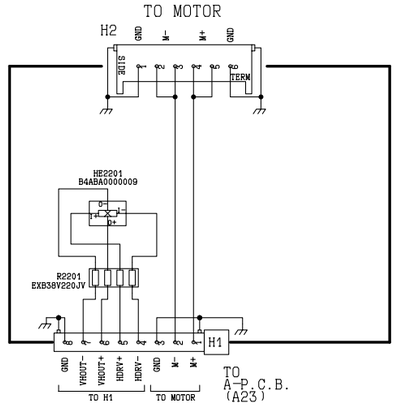
V-P.C.Board TNPA4723



R-P.C.Board TNPA4721



H-P.C.Board TNPA4722



F E D C B A

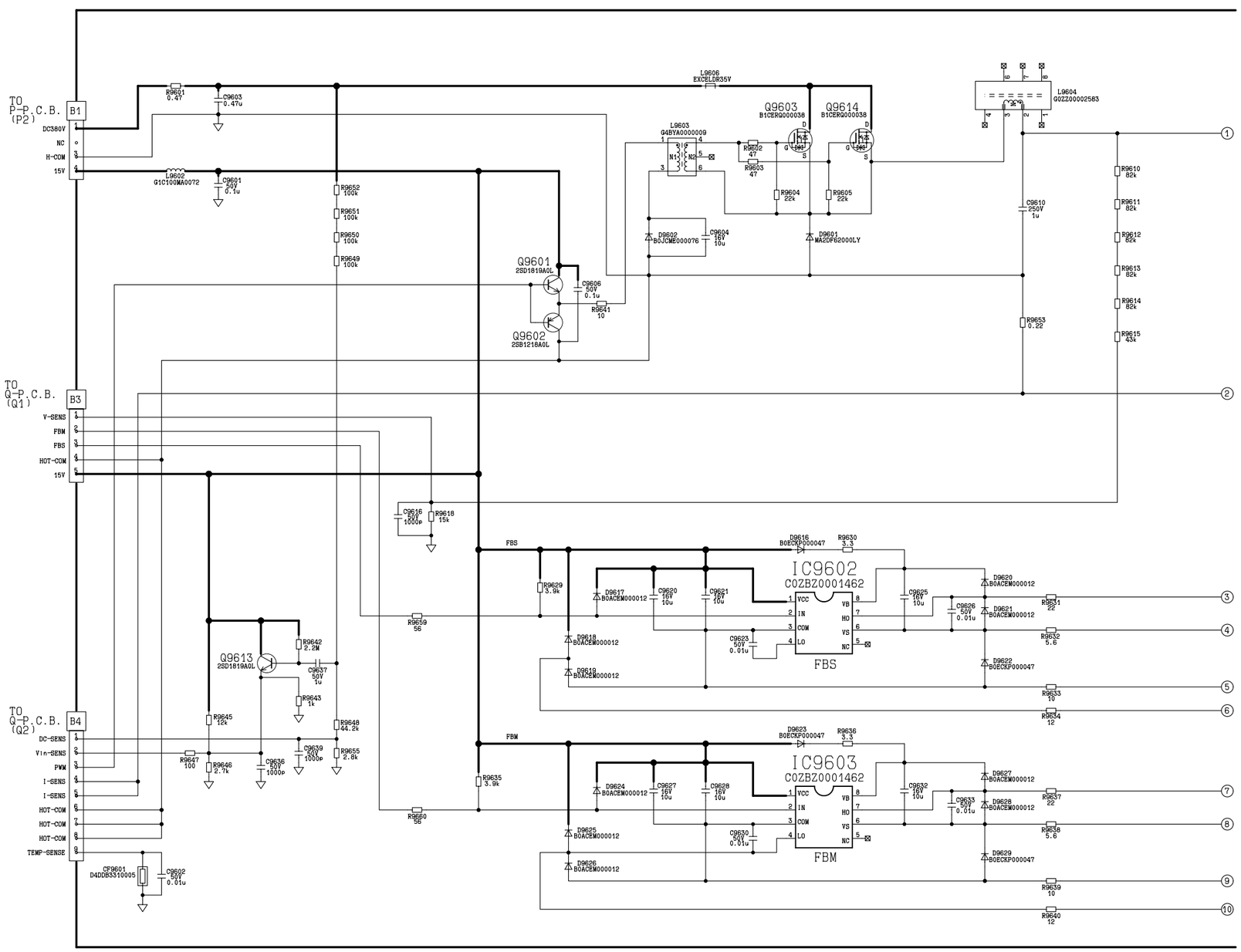
1 2 3 4 5 6 7 8 9

11.12. B-Module (1/2)

B-Module TXANP03VKJ8 (1/2)

Module Replacement

Only supplied components IC9602-03, Q9603-11, Q9614, D9601, D9604-09, D9611-12, D9616-29, R9601, R9630-34, R9636-40, R9653, C9603, C9610, C9617-19, T9604, S9602

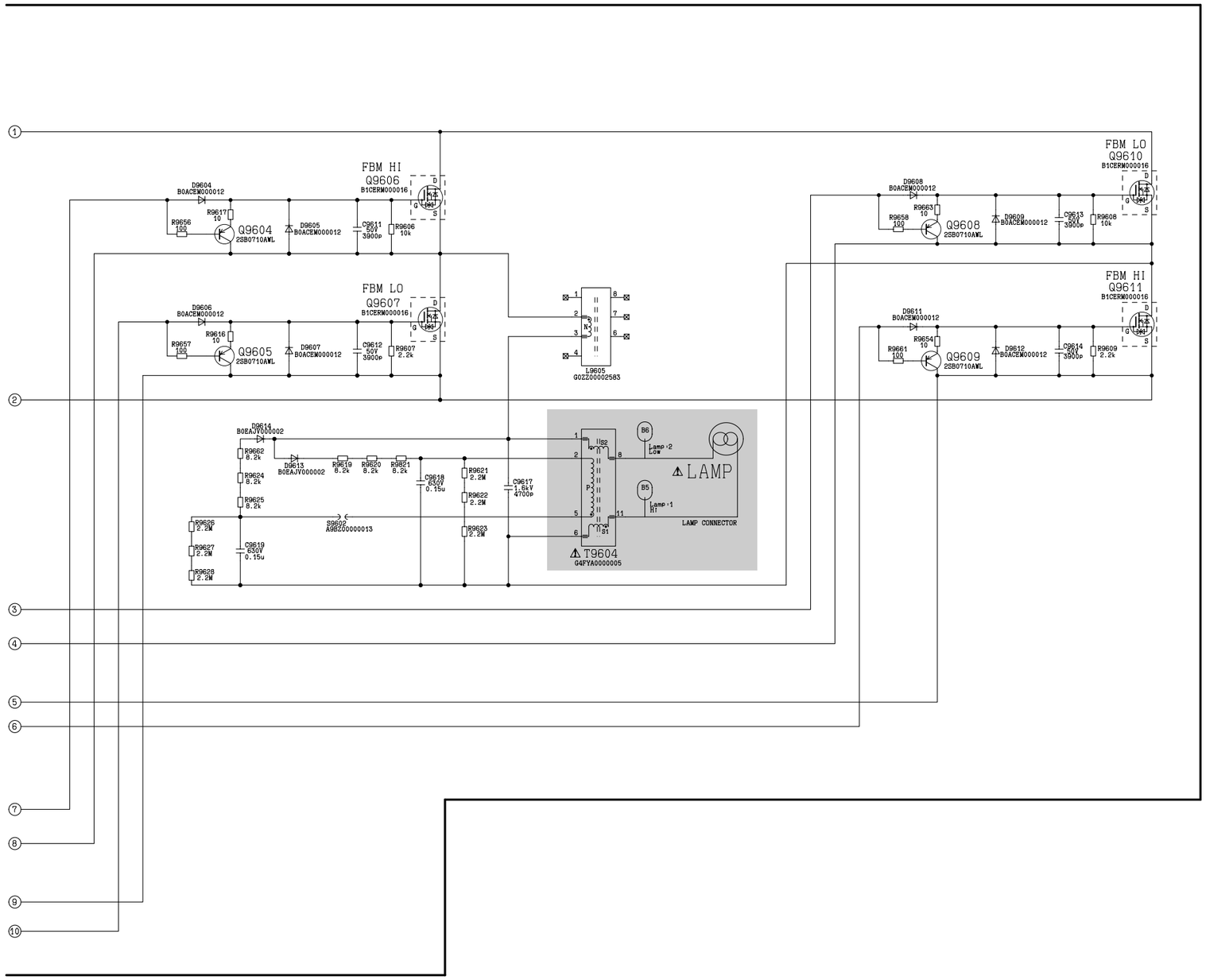


11.13. B-Module (2/2)

B-Module TXANP03VKJ8 (2/2)

Module Replacement

Only supplied components IC9602-03, Q9603-11, Q9614, D9601, D9604-09, D9611-12, D9616-29, R9601, R9630-34, R9636-40, R9653, C9603, C9610, C9617-19, T9604, S9602



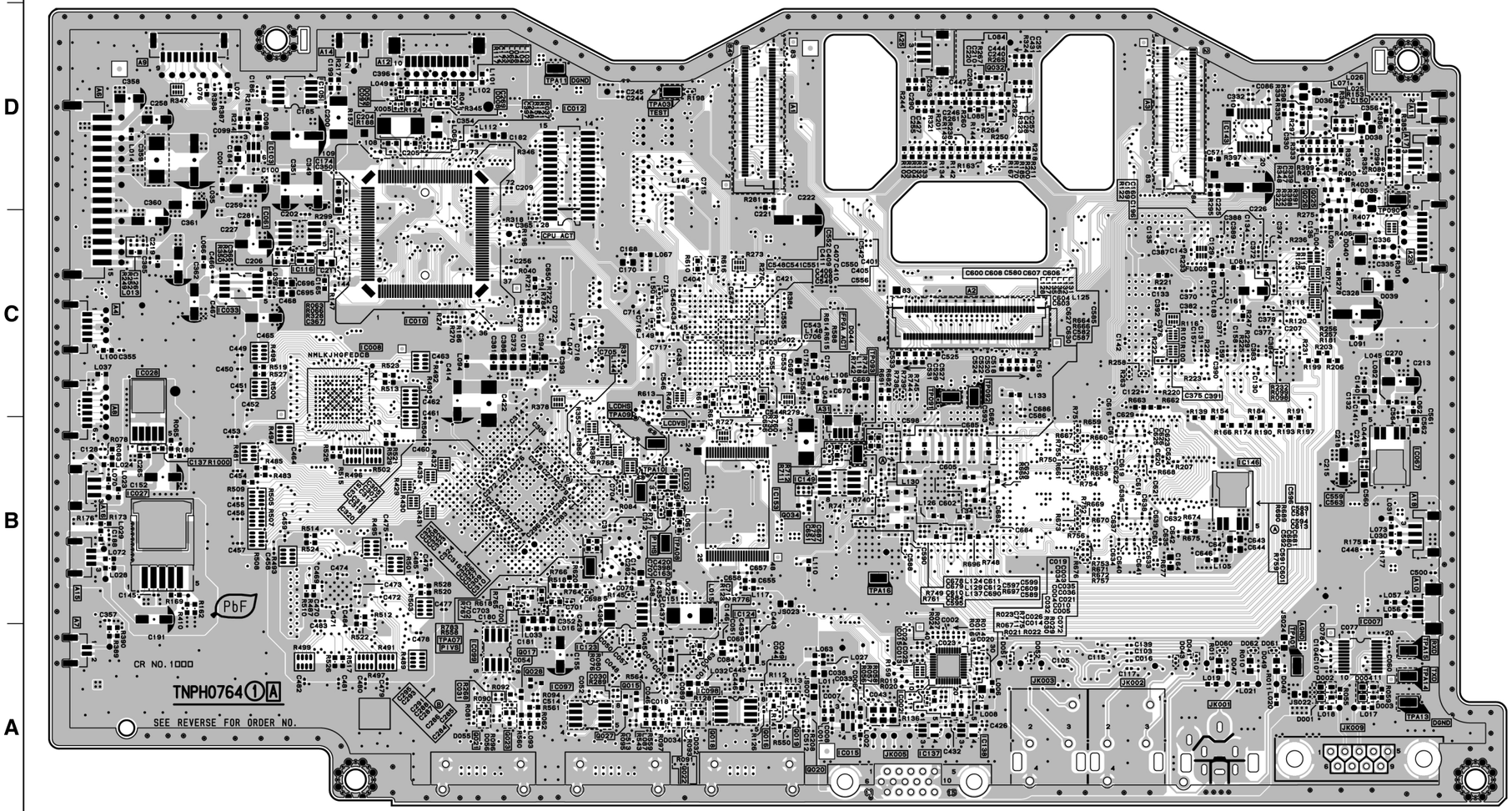
12 Circuit Boards

12.1. A-P.C.Board (Foil Side)

A-P.C.Board TXANP01VKJ8 (Foil Side)

A-P.C.Board (Foil Side)							
IC						TRANSISTOR	
IC1002	A-5	IC1061	C-2	IC1143	D-6	Q1015	A-3
IC1007	A-7	IC1067	B-7	IC1146	B-6	Q1017	A-3
IC1008	C-2	IC1103	D-2	IC1149	B-4	Q1020	A-4
IC1010	C-2	IC1105	D-2	IC1153	B-4	Q1025	D-7
IC1012	D-3	IC1116	C-2			Q1026	D-7
IC1015	A-4	IC1123	A-3			Q1027	A-3
IC1027	B-1	IC1124	A-4			Q1028	A-3
IC1028	C-1	IC1137	A-5			Q1032	D-5
IC1033	C-2	IC1138	A-5			Q1034	B-4

ADDRESS INFORMATION

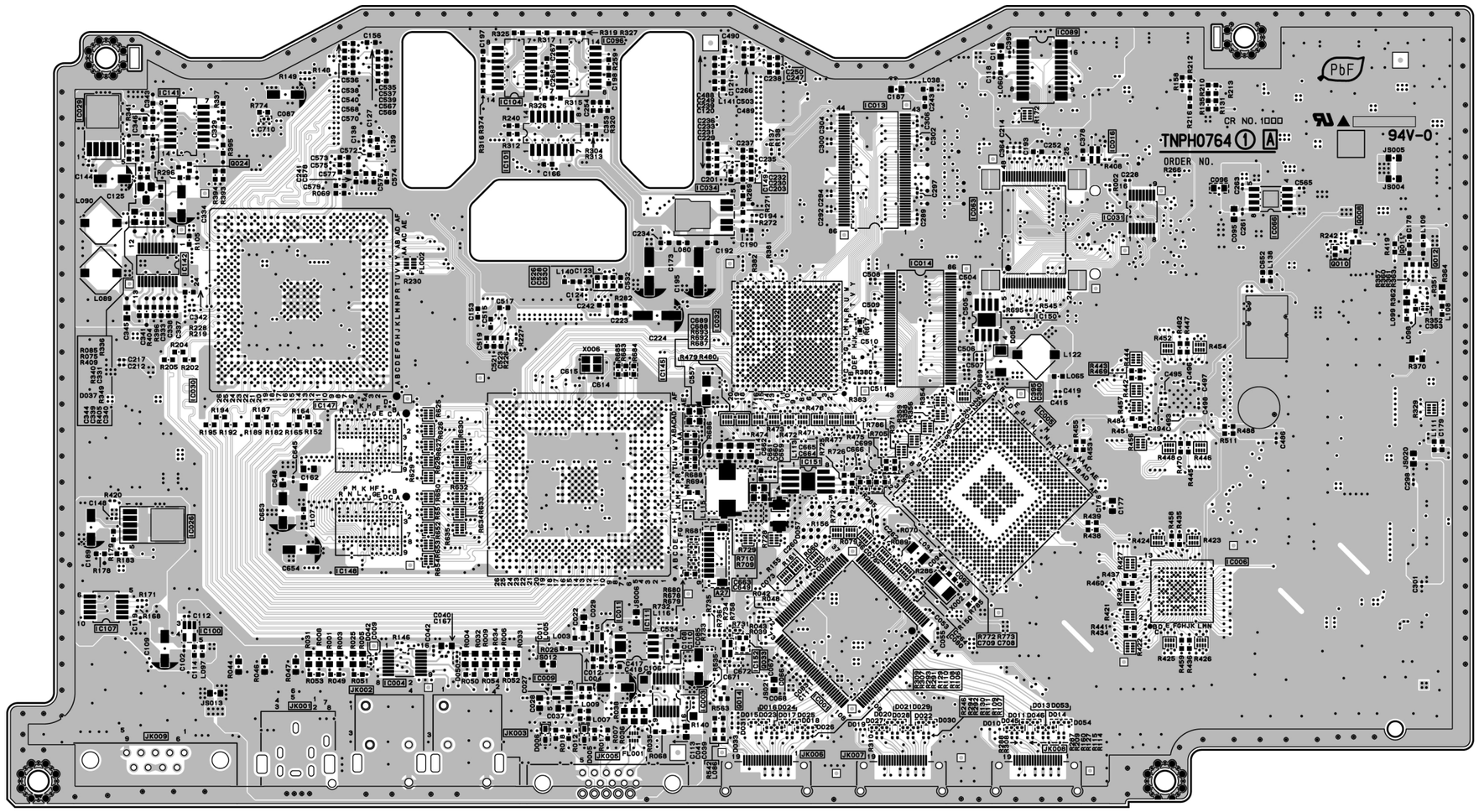


12.2. A-P.C.Board (Component Side)

A-P.C.Board TXANP01VKJ8 (Component Side)

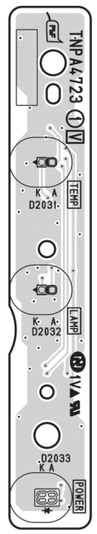
A-P.C.Board (Component Side)									
IC								TRANSISTOR	
IC1001	A-5	IC1016	D-6	IC1089	D-6	IC1145	B-3	Q1008	C-7
IC1003	A-4	IC1026	B-1	IC1096	D-3	IC1147	B-2	Q1011	C-7
IC1004	A-2	IC1029	D-1	IC1100	B-2	IC1148	B-2	Q1012	C-7
IC1005	B-5	IC1030	C-2	IC1101	D-3	IC1150	C-5	Q1014	A-4
IC1006	B-6	IC1031	C-6	IC1104	D-3	IC1151	B-4	Q1024	D-1
IC1009	A-3	IC1032	C-4	IC1107	B-1	IC1152	A-4		
IC1011	A-3	IC1034	C-4	IC1111	A-4				
IC1013	D-5	IC1063	C-5	IC1141	D-1				
IC1014	C-5	IC1066	C-7	IC1142	C-1				

ADDRESS INFORMATION

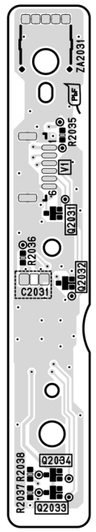


12.3. V-P.C.Board

V-P.C.Board TNPA4723
(Foil Side)



V-P.C.Board TNPA4723
(Component Side)

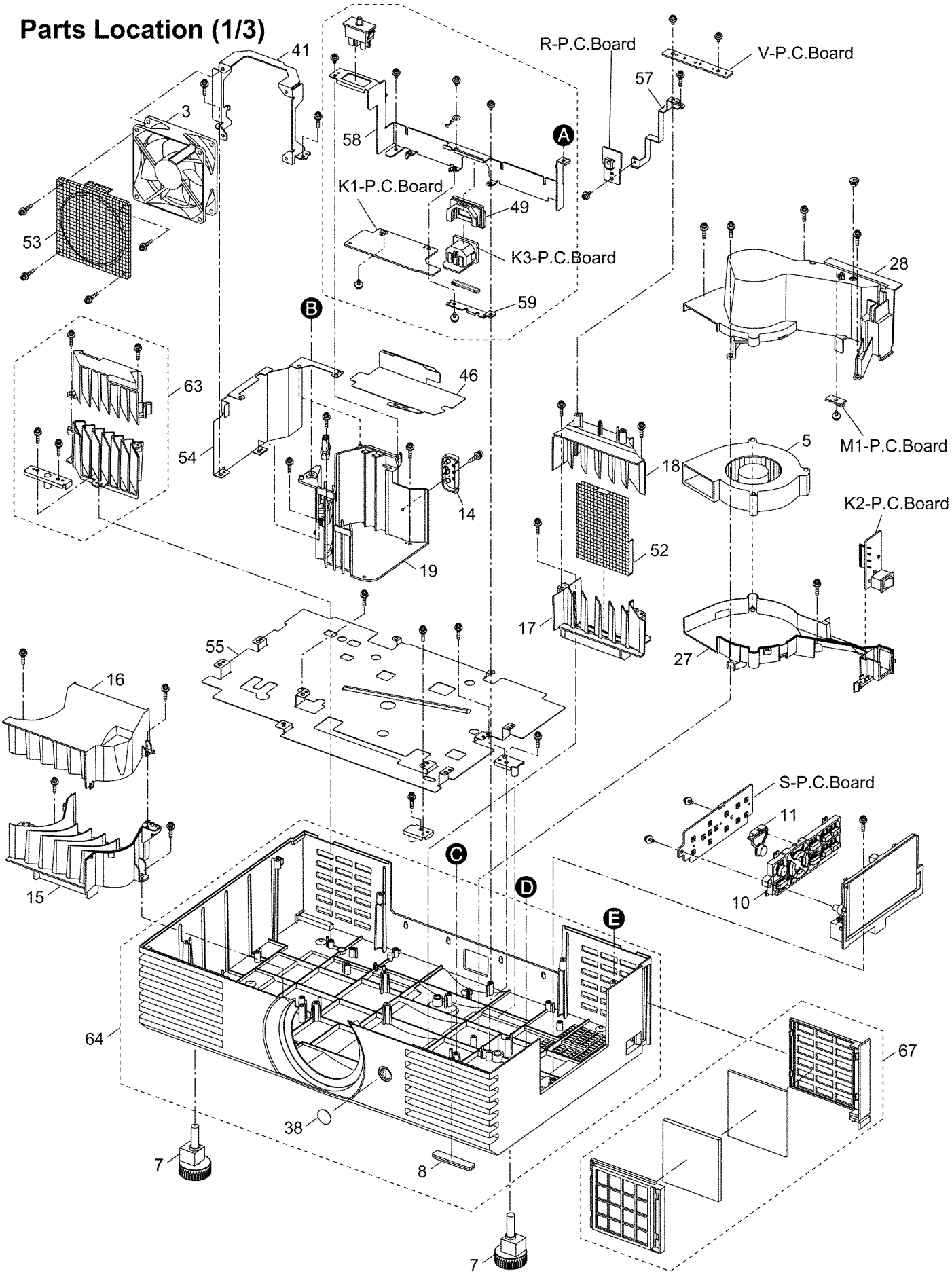


V-P.C.Board (Component Side)	
TRANSISTOR	
Q2031	E-4
Q2032	D-4
Q2033	D-4
Q2034	D-4

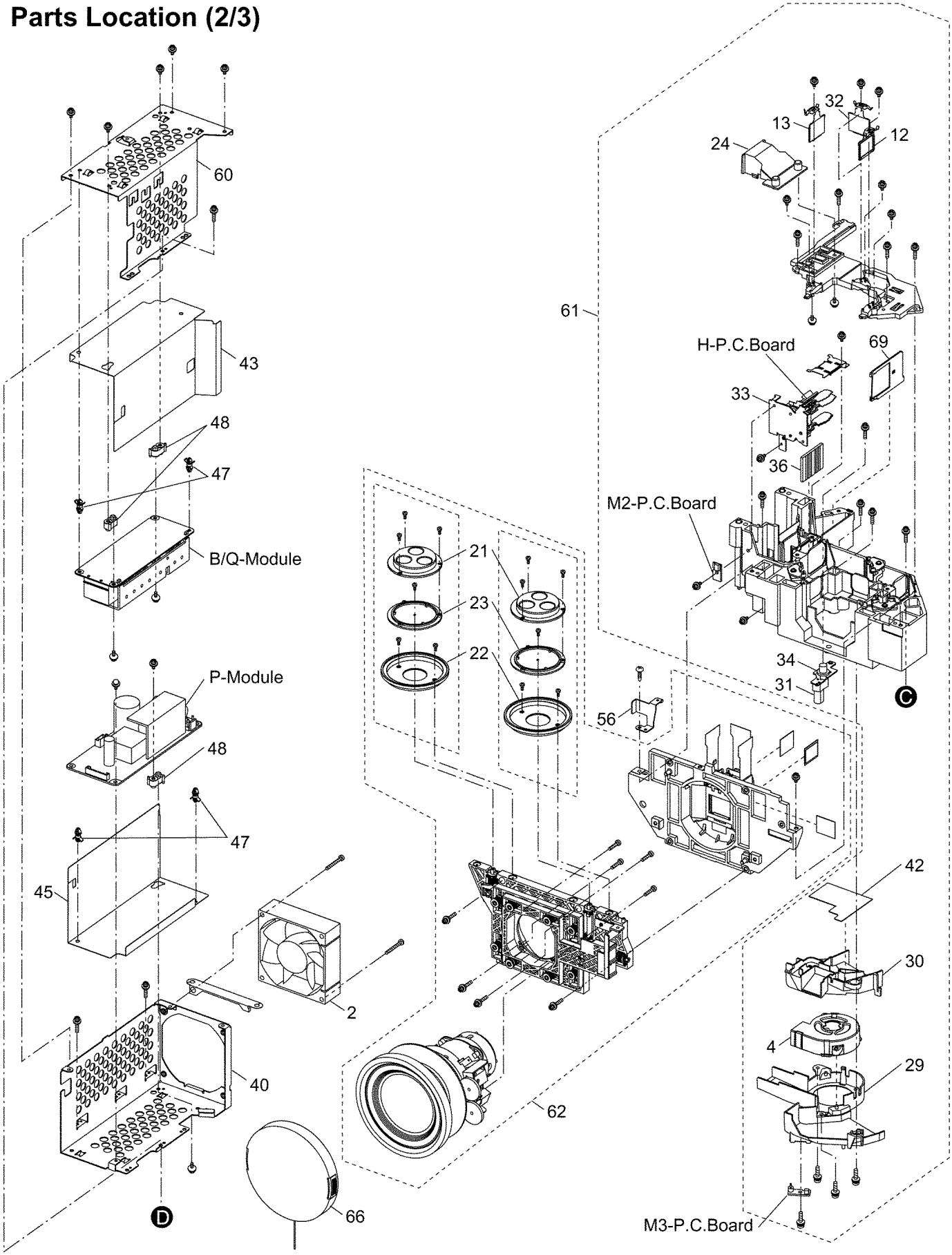
ADDRESS INFORMATION

13 Exploded Views

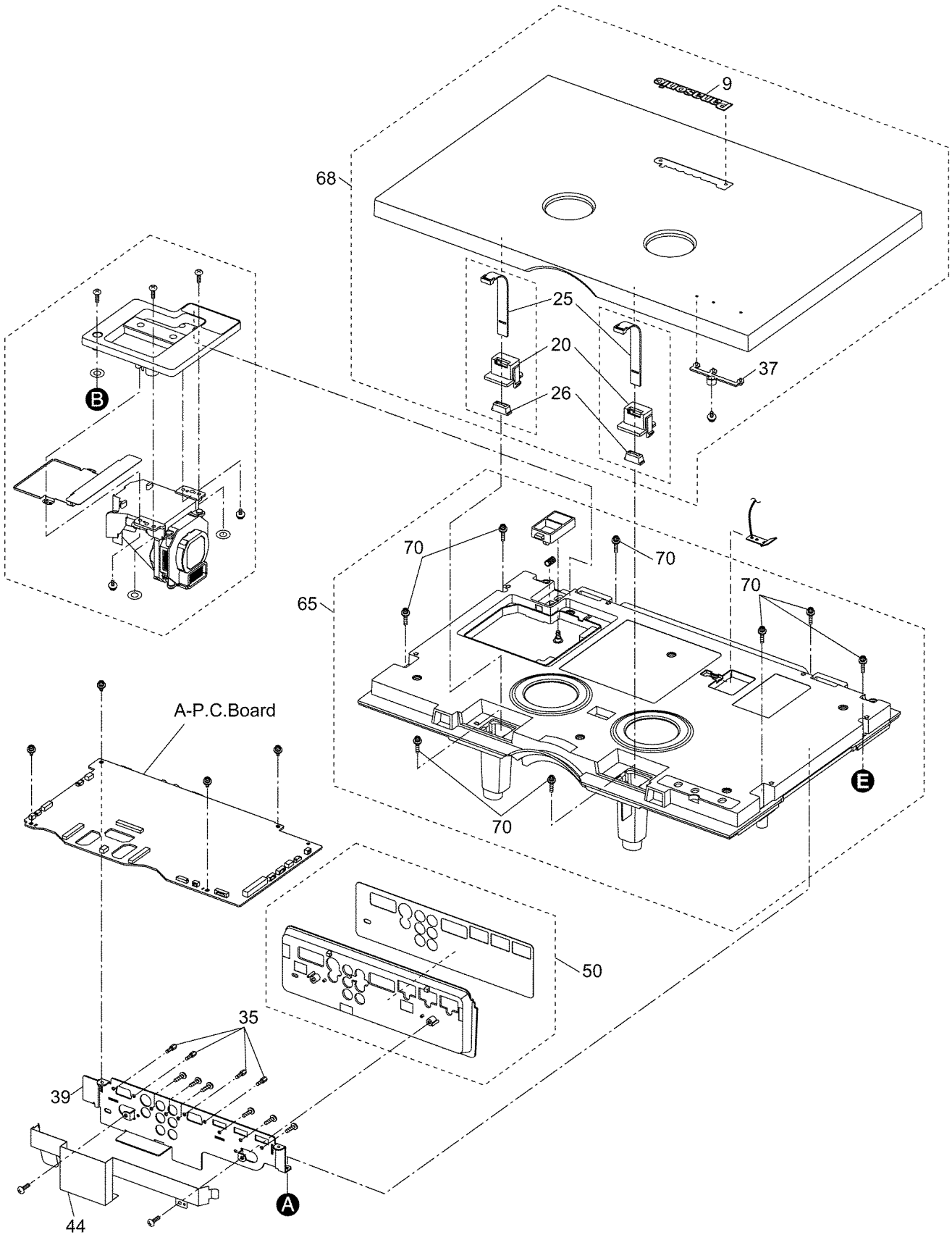
Parts Location (1/3)



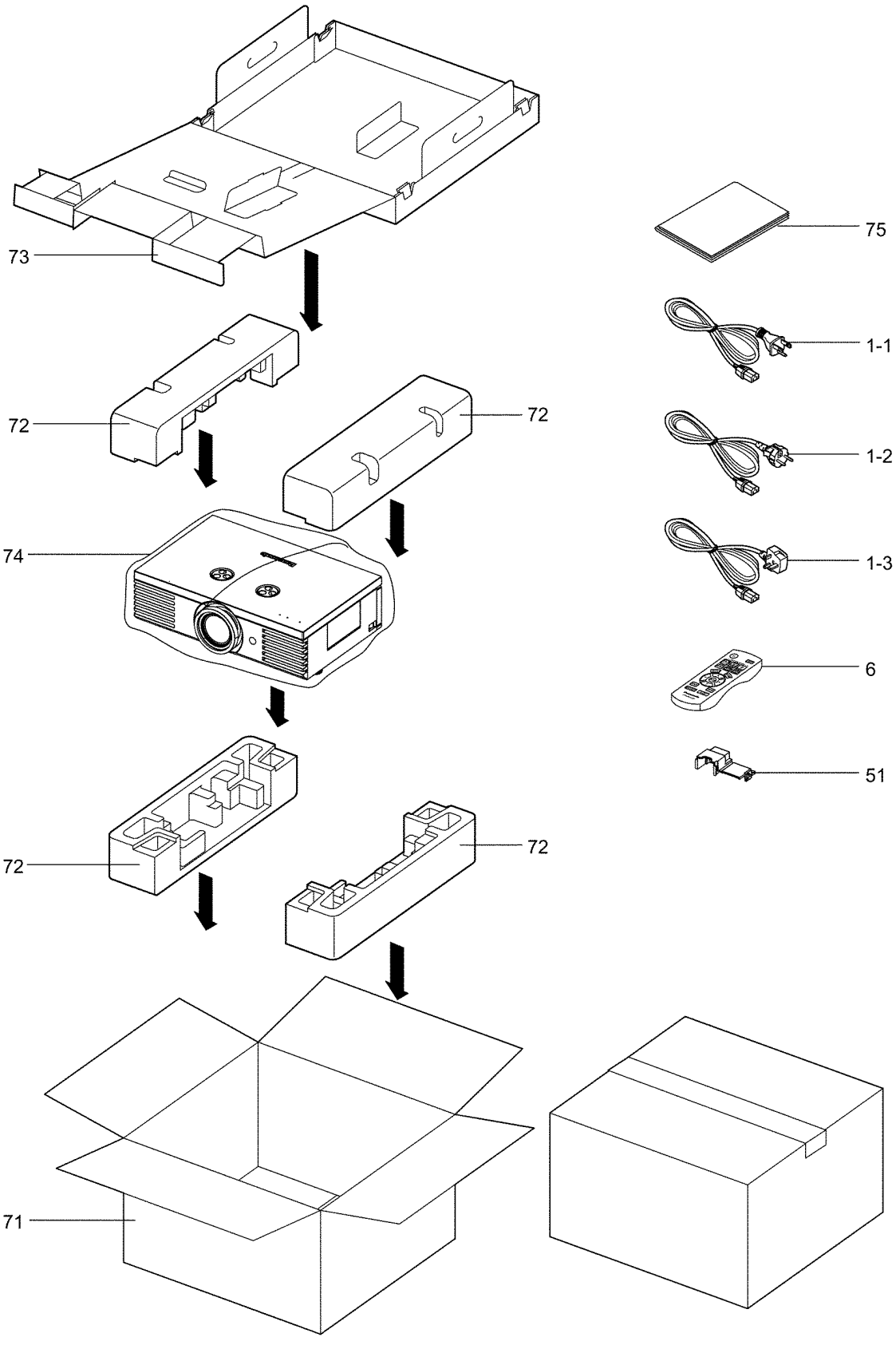
Parts Location (2/3)



Parts Location (3/3)



Packing Parts



14 Replacement Parts List

Important Safety Notice

Components identified by the International symbol ⚠ have special characteristics important for safety.
When replacing any of these components, use only the manufacturer's specified parts.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Carbon	F : ± 1 %
F : Fuse	G : ± 2 %
M : Metal Oxide	J : ± 5 %
Metal Film	K : ±10%
S : Solid	M : ±20%
W : Wire Wound	

2. Capacitor

Example:

ECKF1H103ZF C 0.01PF, Z, 50V

TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Ceramic	C : ±0.25 pF
E : Electrolytic	D : ±0.5 pF
P : Polyester	F : ± 1 pF
PP : Polypropylene	J : ± 5 %
S : Polystyrol	K : ±10 %
T : Tantalum	L : ±15 %
	M : ±20 %
	P : +100 %, -0 %
	Z : +80 %, -20 %

Notes:

Printed circuit board assembly with mark (RTL) is no longer available after production discontinuation of the complete set.

Ref. No.	Part No.	Part Name & Description	Remarks
	[MECHANICAL PARTS]		
	J0KA00000056	CORE	
	J0KG00000011	CORE	⚠
	K0ADBE000002	INTERLOCK SWITCH	⚠
1-1	K2CG3FH00017	POWER CORD	⚠ PT-AE3000U
1-2	K2CM3FH00001	POWER CORD(EUROPE)	⚠ PT-AE3000E
1-3	K2CT3FH00003	POWER CORD(ENG)	⚠ PT-AE3000E
2	L6FAYYYH0048	POWER FAN	⚠
3	L6FAYYYH0070	VENTILATION FAN	⚠
4	L6FCYYYH0012	PBS FAN	⚠
5	L6FCYYYH0031	INHALATION FAN	⚠
6	N2QAYB000316	REMOTE CONTROLLER	
7	TBLB0063	ADJUST LEG	
8	TBLG3090	RUBBER LEG (REAR)	
9	TBMA253	PANASONIC BADGE	
	TBMH201	MODEL NAME PLATE	⚠ PT-AE3000U
	TBMH203	MODEL NAME PLATE	⚠ PT-AE3000E
	TBMH202	MODEL NO. LABEL	PT-AE3000U
	TBMH204	MODEL NO. LABEL	PT-AE3000E
	TBMU820-1	CONTROL BUTTON SHEET	
10	TBXA50201	CONTROL BUTTON 1	
11	TBXA51004	CONTROL BUTTON 2	
12	TEEC0048	POLARIZING PLATE/IN (R)	
13	TEEC0050	POLARIZING PLATE/IN (B)	
14	TEEC5120	TEMP FUSE INSTALL METAL	⚠
15	TEEC5266	LAMP VENTILATION DUCT 1	⚠
16	TEEC5267	LAMP VENTILATION DUCT 2	⚠
17	TEEC5269	POWER VENTILATION DUCT 1	⚠
18	TEEC5270	POWER VENTILATION DUCT 2	⚠
19	TEEC5273	LAMP HOUSE	⚠
20	TEEC5280	TOP PANEL FIX METAL 1	⚠
21	TEEC5293-1	DIAL	
22	TEEC5294-1	DIAL TRAY	⚠
23	TEEC5295	DIAL TRAY MASK	⚠

Ref. No.	Part No.	Part Name & Description	Remarks
24	TEEC5298	LIGHTING DUCT	⚠
25	TEEC5299	TOP PANEL FIX METAL 2	⚠
26	TEEC5300	TOP PANEL FIX METAL 3	⚠
27	TEEC5336	INHALATION DUCT 1	⚠
28	TEEC5337	INHALATION DUCT 2	⚠
29	TEEC5340-1	OPTICAL DUCT 2	⚠
30	TEEC5370	OPTICAL DUCT 1	⚠
	TEFC5034	RUBBER CAP	
31	TEKH029	MOTOR	⚠
	TEKX046	RATCH	
32	TENC0172	POLARIZING PLATE/IN (G)	
33	TENC0173	IRIS UNIT	
34	TENC5363	MOTOR INSTALL METAL	
	TESD048	SPRING	
	TEWA988	SHIELD GASKET 1	
	TEWA989	SHIELD GASKET 2	
	TEWB019	SHIELD GASKET	
35	THEC084N	D-SUB FIX SCREW	
	THEC0939	SCREW (TOP PANEL FIX)	
36	TKGP5264	PBS	
37	TKKC5255	LED PLATE	
38	TKKC5273	REMOTE CONTROL RECEIVER	
	TKKL5382-1	CONTROL BUTTON DOOR	
	TKKX5106-1	INSTALL PLATE 1 (C-BUTTON)	
	TKKX5107	INSTALL PLATE 2 (C-BUTTON)	
	TKKX5109	LENS COVER STRAP	
39	TKZF5055	TERMINAL METAL	
40	TKZJ5068	POWER FAN INSTALL METAL	
41	TKZJ5074	VENTILATION FAN METAL	
	TKZX5205	WIRE INSTALL METAL	
	TKZX5213	CEILING BOSS METAL	
	TMKA659	STRAP	
	TMKG772	SPONGE SPACER	
	TMKG785	LENS SPACER	
	TMKG856	LENS INSULATION SHEET	
42	TMKY143	OPTICAL DUCT COVER	
	TMKY147-1	INSULATION SHEET	
43	TMKY160-2	BALLAST SHIELD SHEET	⚠

Ref. No.	Part No.	Part Name & Description	Remarks
	TMKY229-1	LED INSULATION SHEET	
	TMKY230	TOP PANEL HOOK	
	TMKY231-1	INSULATION SHEET	
44	TMKY344	SHADING SHEET (A-PCB)	
	TMKY358	WIRE SHEET	
45	TMKY370-1	POWER SHIELD SHEET	⚠
	TMKY551-1	SHIELD SHEET (Q-PCB)	
46	TMKY612	SHIELD SHEET (K-PCB)	⚠
	TMME244	TIERAP	
47	TMME279	SPACER	⚠
	TMME326	TIERAP	
48	TMXE049	BOARD INSTALL METAL	⚠
49	TMZX5157	AC LOCK FIXED PARTS	
71	TPCC54402	CARTON	⚠ PT-AE3000U
	TPCC54403	CARTON	⚠ PT-AE3000E
72	TPDA1948	CUSHION PAD 1	
73	TPDF2234	ACCESSORY CARTON	
74	TPEH110-1	SET COVER	⚠
	TPEH396	POLY BAG (AC LOCK)	
	TPGA4260	CARTON	PT-AE3000U
75	TQBJ0277	INSTRUCTION BOOK	⚠ PT-AE3000U
	TQBJ0278	INSTRUCTION BOOK	⚠ PT-AE3000E
	TQBJ7002-2	SERVICE CENTER SHEET	PT-AE3000U
	TQD1712010	SHEET	
	TQDJ18026-4	GUARANTEE CARD(USA)	PT-AE3000U
	TQDJ18029	GUARANTEE CARD(CANADA)	PT-AE3000U
	TQDJ19116-1	DTV SHEET	PT-AE3000U
50	TTPA0507	TERMINAL COVER ASSY	⚠
	TTRA0141	WIRE ASSY	⚠
51	TTRA0182	AC LOCK	PT-AE3000U
	TTRA0183	AC LOCK	PT-AE3000E
52	TUCB5061	POWER-BOX SHIELD METAL	
53	TUCB5062	FAN SHIELD METAL	
	TUCB5075	ALUMINUM SHEET 2	
54	TUCB5076-1	LAMP SHIELD METAL	
	TUCB5084	ALUMINUM SHEET 8	
55	TUCX5224-2	BASE METAL	
56	TUCX5225	INSTALL METAL (A-PCB)	
57	TUCX5227	METAL (RV-PCB)	
58	TUWC069	K-PCB METAL	
59	TUWC071	INLET SUPPLEMENT METAL	
60	TUXX406	BALLAST INSTALL METAL	
61	TXFEC98VKJ8	ANALYSIS BLOCK	⚠
62	TXFEC99VKJ8A	OPTICAL BLOCK A	⚠ L3C07U-85G1B (NORMAL)
	TXFEC99VKJ8B	OPTICAL BLOCK B	⚠ L3C07U-86G11B (REVERSE)
63	TXFEE02VKD4	LAMP INHALATION DUCT ASSY	⚠
64	TXFKF01QYCZ	BOTTOM COVER	⚠ PT-AE3000U
	TXFKF01QYDZ	BOTTOM COVER	⚠ PT-AE3000E
65	TXFKF02QYCZ	UPPER COVER	⚠
66	TXFKK01VKF5	LENS COVER ASSY	
67	TXFKN01VKF5	FILTER ASSY	
68	TXFKP01QYCZ	TOP PANEL ASSY	⚠ PT-AE3000U
	TXFKP01QYDZ	TOP PANEL ASSY	⚠ PT-AE3000E
	TXJ/B1VKD3	LEAD WIRE (B1-P2)	⚠
	TXJ/E1VKD4	EARTH LEAD WIRE	⚠
	TXJ/E3VKD3	EARTH LEAD WIRE	⚠
	TXJ/E4VKD3	EARTH LEAD WIRE	⚠
	TXJ/H1VKJ8	LEAD WIRE (H1-A23)	⚠
	TXJ/K1VKD4-5	LEAD WIRE (K1-PK)	⚠
	TXJ/K2VKJ8	CABLE (BROWN)	⚠
	TXJ/K3VKJ8	CABLE (BLUE)	⚠
	TXJ/M1VKJ8	CABLE (M1-A7)(M1-A11)	⚠
	TXJ/M3VKJ8	CABLE (M2-A14)	⚠
	TXJ/P1VKJ8	LEAD WIRE (PK-P1)	⚠
	TXJ/P3VKJ8	LEAD WIRE (P3-A6)	⚠
	TXJ/Q3VKJ8	LEAD WIRE (Q3-A4)	⚠
	TXJ/R1VKJ8	CABLE (R1-A9)	⚠
	TXJ/S1VKJ8	LEAD WIRE (S PWB-A8)	⚠
69	TXZEC03VKJ8	CINEMA FILTER ASSY	

Ref. No.	Part No.	Part Name & Description	Remarks
	XQN17+CJ4FJK	SCREW(OPTICAL BLOCK)	
	XQN2+CJ6FJ	SCREW(OPTICAL BLOCK)	
	XQS17+C6FJK	SCREW(MOTOR)	
	XSN3+8FJK	SCREW	
	XSS2+6FJK	SCREW(OPTICAL BLOCK)	
	XTB3+10CFN	SCREW	
70	XTB3+12GFJK	SCREW	
	XTBT969FJK	SCREW	
	XTN3+6GFJ	SCREW	
	XTW3+8PFJ	SCREW	
	XYC3+FG10FJK	SCREW	
	XYN2+F6FJ	SCREW	
	XYN2+J4FJ	SCREW	
	XYN3+F14FJ	SCREW (POWER FAN)	
	XYN3+F8FJ	SCREW	
	XYN3+J10FJ	SCREW(ANALYSIS BLOCK)	
	XYN3+J12FJ	SCREW	
	XYN3+J8FJ	SCREW	
	XYN4+E8FJ	SCREW	
	XYN4+F32FJ	SCREW	
	XYN4+J12FJ	SCREW	
	XZB15X32C05	POLY BAG	
	XZBT6506	POLY BAG	
[INTGRATED CIRCUIT]			
IC1001	C1AB00002966	I.C	
IC1002	C1AB00002521	I.C	
IC1003	C0JBAS000333	I.C	
IC1004	C0JBAS000333	I.C	
IC1005	C1AB00002821	I.C	
IC1006	C3ABQJ000058	I.C	
IC1007	C0ZBZ0001361	I.C	
IC1008	C3ABQJ000058	I.C	
IC1009	C0CBCAC00192	I.C	
IC1010	TVRQ181AB	I.C	
IC1011	C0CBCAC00192	I.C	
IC1012	C3BBFC000321	I.C	
IC1013	C3ABPJ000074	I.C	
IC1014	C3ABPJ000074	I.C	
IC1015	C0CBCBD00008	I.C	
IC1026	C0DBEKG00004	I.C	
IC1027	C0DBEYY00042	I.C	
IC1028	C0DBEKG00004	I.C	
IC1029	C0DBEKG00004	I.C	
IC1030	C1AB00002982	I.C	
IC1032	C1ZBZ0003419	I.C	
IC1033	C0DBEFH00002	I.C	
IC1034	C0CBCYG00004	I.C	
IC1061	C3EBKC000014	I.C	
IC1063	TVRQ182AA	I.C	
IC1066	C0DBGFG00005	I.C	
IC1067	C0DBZFG00054	I.C	
IC1089	C0GBA0000035	I.C	
IC1096	C0ABCA000085	I.C	
IC1100	C0CBCDD00004	I.C	
IC1101	C0ABCA000085	I.C	
IC1103	C0DBEJC00002	I.C	
IC1104	C0ABCA000085	I.C	
IC1105	C0ABBA000229	I.C	
IC1107	C0GBG0000053	I.C	
IC1111	C0DBGFF00004	I.C	
IC1116	C0EBE0000336	I.C	
IC1123	C0DBGFF00004	I.C	
IC1124	C0CBCAD00015	I.C	
IC1137	C0JBAA000359	I.C	
IC1138	C0JBAA000359	I.C	
IC1141	C0ABCA000085	I.C	
IC1142	C1BB00000888	I.C	
IC1143	TVRQ184	I.C	
IC1145	C1AB00002957	I.C	
IC1146	C0CBCAG00015	I.C	
IC1147	C3ABSG000048	I.C	

Ref. No.	Part No.	Part Name & Description	Remarks
IC1148	C3ABSG000048	I.C	
IC1149	TVRQ185	I.C	
IC1150	C0DBAYY00447	I.C	
IC1151	C0DBAYY00448	I.C	
IC1152	C0EBE0000336	I.C	
IC1153	TVRQ183AA	I.C	
IC9602	C0ZBZ0001462	I.C	(B-PCB)
IC9603	C0ZBZ0001462	I.C	(B-PCB)
[TRANSISTORS]			
Q1008	B1ABDF000018	TRANSISTOR	
Q1011	B1ABDF000018	TRANSISTOR	
Q1012	B1ABDF000018	TRANSISTOR	
Q1014	B1GBCFJJ0007	TRANSISTOR	
Q1015	B1GBCFJJ0007	TRANSISTOR	
Q1017	B1GBCFJJ0007	TRANSISTOR	
Q1020	B1GBCFJJ0007	TRANSISTOR	
Q1024	B1ABDF000018	TRANSISTOR	
Q1025	B1ADCE000013	TRANSISTOR	
Q1026	B1ABDF000018	TRANSISTOR	
Q1027	B1GBCFJJ0007	TRANSISTOR	
Q1028	B1GBCFJJ0007	TRANSISTOR	
Q1032	B1ADCE000013	TRANSISTOR	
Q1034	B1ABDF000018	TRANSISTOR	
Q2031	B1GBCFJJ0007	TRANSISTOR	
Q2032	B1GBCFJJ0007	TRANSISTOR	
Q2033	B1GDCFJJ0008	TRANSISTOR	
Q2034	B1GDCFJJ0008	TRANSISTOR	
Q9603	B1CERQ000038	TRANSISTOR	(B-PCB)
Q9604	B1ADGF000006	TRANSISTOR	(B-PCB)
Q9605	B1ADGF000006	TRANSISTOR	(B-PCB)
Q9606	B1DEGM000030	TRANSISTOR	(B-PCB)
Q9607	B1DEGM000030	TRANSISTOR	(B-PCB)
Q9608	B1ADGF000006	TRANSISTOR	(B-PCB)
Q9609	B1ADGF000006	TRANSISTOR	(B-PCB)
Q9610	B1DEGM000030	TRANSISTOR	(B-PCB)
Q9611	B1DEGM000030	TRANSISTOR	(B-PCB)
Q9614	B1CERQ000038	TRANSISTOR	(B-PCB)
[DIODES]			
D1031	EZJZ0V171AA	VARISTOR	
D1032	EZJZ0V171AA	VARISTOR	
D1033	EZJZ0V171AA	VARISTOR	
D1034	B3AAB0000038	DIODE	
D1034	EZJZ0V171AA	VARISTOR	
D1035	MA152WK	DIODE	
D1036	MA152WK	DIODE	
D1037	MA3X15300L	DIODE	
D1038	MA704A	DIODE	
D1039	B0JCPD000026	DIODE	
D1040	B0JCPD000026	DIODE	
D1047	EZAEG2A50AX	DIODE	
D1048	EZAEG2A50AX	DIODE	
D1049	EZAEG2A50AX	DIODE	
D1055	EZJZ0V171AA	VARISTOR	
D1056	EZJZ0V171AA	VARISTOR	
D1057	B0JCRD000012	DIODE	
D1058	B0JCPD000026	DIODE	
D1060	EZAEG2A50AX	DIODE	
D1061	EZAEG2A50AX	DIODE	
D1062	EZAEG2A50AX	DIODE	
D2031	B3AAB0000038	DIODE	
D2032	B3AAB0000038	DIODE	
D2033	B3AGB0000051	DIODE	
D9101	ERZV10V621T2	VARISTOR	⚠
D9102	ERZV10V621T2	VARISTOR	
D9601	MA2DF62000LY	DIODE	(B-PCB)
D9604	B0ACEM000012	DIODE	(B-PCB)
D9605	B0ACEM000012	DIODE	(B-PCB)
D9606	B0ACEM000012	DIODE	(B-PCB)
D9607	B0ACEM000012	DIODE	(B-PCB)

Ref. No.	Part No.	Part Name & Description	Remarks
D9608	B0ACEM000012	DIODE	(B-PCB)
D9609	B0ACEM000012	DIODE	(B-PCB)
D9611	B0ACEM000012	DIODE	(B-PCB)
D9612	B0ACEM000012	DIODE	(B-PCB)
D9616	B0ECKP000047	DIODE	(B-PCB)
D9617	B0ACEM000012	DIODE	(B-PCB)
D9618	B0ACEM000012	DIODE	(B-PCB)
D9619	B0ACEM000012	DIODE	(B-PCB)
D9620	B0ACEM000012	DIODE	(B-PCB)
D9621	B0ACEM000012	DIODE	(B-PCB)
D9622	B0ECKP000047	DIODE	(B-PCB)
D9623	B0ECKP000047	DIODE	(B-PCB)
D9624	B0ACEM000012	DIODE	(B-PCB)
D9625	B0ACEM000012	DIODE	(B-PCB)
D9626	B0ACEM000012	DIODE	(B-PCB)
D9627	B0ACEM000012	DIODE	(B-PCB)
D9628	B0ACEM000012	DIODE	(B-PCB)
D9629	B0ECKP000047	DIODE	(B-PCB)
[COILS]			
L1001	J0JJC0000022	EMI FILTER	
L1002	J0JJC0000022	EMI FILTER	
L1003	J0JCC0000168	FILTER	
L1004	J0JCC0000168	FILTER	
L1005	J0JCC0000168	FILTER	
L1006	J0JCC0000168	FILTER	
L1007	J0JCC0000168	FILTER	
L1008	J0JCC0000168	FILTER	
L1009	J0JJC0000022	EMI FILTER	
L1011	J0JJC0000022	EMI FILTER	
L1013	J0JCC0000168	FILTER	
L1014	J0JCC0000168	FILTER	
L1015	J0JCC0000168	FILTER	
L1016	J0JCC0000168	FILTER	
L1017	J0JCC0000168	FILTER	
L1018	J0JCC0000168	FILTER	
L1019	J0JCC0000168	FILTER	
L1020	J0JCC0000168	FILTER	
L1021	J0JCC0000168	FILTER	
L1022	J0JCC0000168	FILTER	
L1023	J0JHC0000078	EMI FILTER	
L1024	J0JHC0000078	EMI FILTER	
L1025	J0JHC0000077	EMI FILTER	
L1026	J0JHC0000078	EMI FILTER	
L1027	J0JCC0000168	FILTER	
L1028	J0JHC0000078	EMI FILTER	
L1029	J0JHC0000078	EMI FILTER	
L1030	J0JHC0000078	EMI FILTER	
L1031	J0JHC0000078	EMI FILTER	
L1032	J0JCC0000168	FILTER	
L1033	J0JJC0000022	EMI FILTER	
L1034	ELJFA470JBB	COIL	
L1035	J0JJC0000022	EMI FILTER	
L1037	J0JYC0000098	FILTER	
L1038	J0JJC0000022	EMI FILTER	
L1039	J0JCC0000168	FILTER	
L1043	J0JCC0000168	FILTER	
L1044	J0JJC0000022	EMI FILTER	
L1045	J0JJC0000022	EMI FILTER	
L1046	J0JJC0000022	EMI FILTER	
L1047	J0JJC0000022	EMI FILTER	
L1048	J0JCC0000168	FILTER	
L1049	J0JCC0000168	FILTER	
L1056	J0JCC0000168	FILTER	
L1057	J0JCC0000168	FILTER	
L1060	J0JJC0000022	EMI FILTER	
L1062	J0JJC0000022	EMI FILTER	
L1063	J0JJC0000022	EMI FILTER	
L1065	J0JJC0000022	EMI FILTER	
L1066	J0JJC0000022	EMI FILTER	
L1067	J0JJC0000022	EMI FILTER	
L1068	ELJFA470JBB	COIL	

Ref. No.	Part No.	Part Name & Description	Remarks
L1069	J0JCC0000168	FILTER	
L1070	J0JHC0000078	EMI FILTER	
L1071	J0JHC0000078	EMI FILTER	
L1072	J0JHC0000078	EMI FILTER	
L1073	J0JHC0000078	EMI FILTER	
L1074	J0JCC0000168	FILTER	
L1076	J0JCC0000168	FILTER	
L1080	J0JJC0000022	EMI FILTER	
L1081	J0JJC0000022	EMI FILTER	
L1082	J0JJC0000022	EMI FILTER	
L1084	J0JJC0000022	EMI FILTER	
L1085	J0JJC0000022	EMI FILTER	
L1086	J0JCC0000168	FILTER	
L1087	J0JCC0000168	FILTER	
L1089	G1C330MA0218	COIL	
L1090	G1C330MA0218	COIL	
L1091	J0JJC0000022	EMI FILTER	
L1092	J0JJC0000022	EMI FILTER	
L1093	J0JCC0000168	FILTER	
L1094	J0JJC0000022	EMI FILTER	
L1097	J0JJC0000022	EMI FILTER	
L1098	J0JGC0000059	FILTER	
L1099	J0JGC0000059	FILTER	
L1100	J0JGC0000059	FILTER	
L1101	J0JCC0000168	FILTER	
L1102	J0JCC0000168	FILTER	
L1103	J0JCC0000168	FILTER	
L1104	J0JCC0000168	FILTER	
L1105	J0JJC0000022	EMI FILTER	
L1106	J0JJC0000022	EMI FILTER	
L1107	J0JJC0000022	EMI FILTER	
L1108	J0JGC0000059	FILTER	
L1109	J0JCC0000168	FILTER	
L1110	J0JJC0000022	EMI FILTER	
L1111	J0JCC0000168	FILTER	
L1112	J0JCC0000168	FILTER	
L1113	J0JJC0000022	EMI FILTER	
L1114	J0JJC0000022	EMI FILTER	
L1115	G1C4R3Z00001	FILTER	
L1117	J0JJC0000022	EMI FILTER	
L1122	G1C100ZA0149	FILTER	
L1123	J0JCC0000168	FILTER	
L1124	J0JJC0000022	EMI FILTER	
L1125	J0JJC0000022	EMI FILTER	
L1126	J0JJC0000022	EMI FILTER	
L1127	J0JJC0000022	EMI FILTER	
L1128	J0JJC0000022	EMI FILTER	
L1129	J0JJC0000022	EMI FILTER	
L1130	J0JJC0000022	EMI FILTER	
L1131	J0JJC0000022	EMI FILTER	
L1132	J0JJC0000022	EMI FILTER	
L1133	J0JJC0000022	EMI FILTER	
L1134	J0JJC0000022	EMI FILTER	
L1135	J0JJC0000022	EMI FILTER	
L1136	J0JJC0000022	EMI FILTER	
L1137	J0JJC0000022	EMI FILTER	
L1138	J0JJC0000022	EMI FILTER	
L1139	J0JJC0000022	EMI FILTER	
L1140	J0JJC0000022	EMI FILTER	
L1141	J0JJC0000022	EMI FILTER	
L1144	J0JBC0000099	FILTER	
L1145	J0JBC0000116	EMI FILTER	
L1146	J0JBC0000098	FILTER	
L1147	J0JBC0000098	FILTER	
L1148	J0JBC0000098	FILTER	
L1149	J0JBC0000116	EMI FILTER	
L1150	J0JBC0000116	EMI FILTER	
L1151	J0JBC0000116	EMI FILTER	
FL1001	J0HAYY000046	EMI FILTER	
FL1002	J0JYD0000020	FILTER	
FL1003	J0JYD0000020	FILTER	
FL1004	J0JYD0000020	FILTER	

Ref. No.	Part No.	Part Name & Description	Remarks
[RESISTORS]			
R1000	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1001	ERJ6ENF18R0	M 18 OHM, 1/10W	
R1002	ERJ2GEJ220	M 22 OHM, 0.063W	
R1003	ERJ6ENF56R0	M 56 OHM, 1/10W	
R1004	ERJ6ENF56R0	M 56 OHM, 1/10W	
R1005	ERJ6ENF56R0	M 56 OHM, 1/10W	
R1006	ERJ6ENF56R0	M 56 OHM, 1/10W	
R1007	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1008	ERJ6ENF56R0	M 56 OHM, 1/10W	
R1009	ERJ6ENF56R0	M 56 OHM, 1/10W	
R1010	ERJ6ENF36R0	M 36 OHM, 1/10W	
R1011	ERJ6ENF36R0	M 36 OHM, 1/10W	
R1012	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1013	ERJ6ENF36R0	M 36 OHM, 1/10W	
R1014	ERJ2GEJ220	M 22 OHM, 0.063W	
R1015	ERJ2GEJ220	M 22 OHM, 0.063W	
R1016	ERJ2GEJ220	M 22 OHM, 0.063W	
R1017	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R1018	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R1019	ERJ2GEJ220	M 22 OHM, 0.063W	
R1020	ERJ2GEJ220	M 22 OHM, 0.063W	
R1021	ERJ2GEJ220	M 22 OHM, 0.063W	
R1022	ERJ2GEJ220	M 22 OHM, 0.063W	
R1023	ERJ2GEJ220	M 22 OHM, 0.063W	
R1024	ERJ2GEJ220	M 22 OHM, 0.063W	
R1025	ERJ6ENF18R0	M 18 OHM, 1/10W	
R1026	ERJ3GEYJ392	M 3.9KOHM,J,1/16W	
R1027	ERJ2GEJ220	M 22 OHM, 0.063W	
R1029	ERJ3EKF1691	M1.69KOHM, 1/16W	
R1030	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	
R1031	ERJ6ENF18R0	M 18 OHM, 1/10W	
R1032	ERJ6ENF18R0	M 18 OHM, 1/10W	
R1033	ERJ6ENF18R0	M 18 OHM, 1/10W	
R1034	ERJ6ENF18R0	M 18 OHM, 1/10W	
R1035	ERJ6ENF18R0	M 18 OHM, 1/10W	
R1036	ERJ6ENF18R0	M 18 OHM, 1/10W	
R1037	ERJ2GEJ103	M 10K OHM, 0.063W	
R1038	ERJ6ENF18R0	M 18 OHM, 1/10W	
R1039	ERJ2GEJ100	M 10 OHM, 0.063W	
R1040	ERJ2GEJ103	M 10K OHM, 0.063W	
R1042	ERJ2GEJ100	M 10 OHM, 0.063W	
R1043	ERJ2GEJ100	M 10 OHM, 0.063W	
R1044	ERJ6ENF39R0	M 39 OHM, 1/10W	
R1045	ERJ3EKF4990	M 499 OHM, 1/16W	
R1046	ERJ6ENF39R0	M 39 OHM, 1/10W	
R1047	ERJ6ENF39R0	M 39 OHM, 1/10W	
R1048	ERJ2GEJ100	M 10 OHM, 0.063W	
R1049	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1050	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1051	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1052	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1053	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1054	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1055	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R1056	ERJ6ENF56R0	M 56 OHM, 1/10W	
R1057	ERJ6ENF56R0	M 56 OHM, 1/10W	
R1058	ERJ6ENF56R0	M 56 OHM, 1/10W	
R1059	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R1060	EXB28V220J	RESISTOR ARRAY	
R1062	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1063	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1065	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1066	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1067	ERJ2GEJ220	M 22 OHM, 0.063W	
R1068	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1069	ERJ3GEYJ123	M 12K OHM,J,1/16W	
R1070	EXB28V220J	RESISTOR ARRAY	
R1071	EXB28V104J	RESISTOR ARRAY	
R1075	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1076	ERJ2GEJ220	M 22 OHM, 0.063W	
R1078	ERJ2GEJ562	M 5.6KOHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1079	EXB28V220J	RESISTOR ARRAY	
R1080	ERJ2GEJ220	M 22 OHM, 0.063W	
R1081	ERJ2GE0R00	M 0 OHM, 0.063W	
R1083	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1084	ERJ2GEJ150	M 15 OHM, 0.063W	
R1085	ERJ3GEYJ273	M 27KOHM,J,1/16W	
R1088	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1089	EXB28V220J	RESISTOR ARRAY	
R1093	ERJ2GE0R00	M 0 OHM, 0.063W	
R1094	ERJ2GEJ223X	M 22K OHM, 0.063W	
R1095	ERJ2GEJ223X	M 22K OHM, 0.063W	
R1096	ERJ2GE0R00	M 0 OHM, 0.063W	
R1097	ERJ2GE0R00	M 0 OHM, 0.063W	
R1098	ERJ2GE0R00	M 0 OHM, 0.063W	
R1099	ERJ2GE0R00	M 0 OHM, 0.063W	
R1100	EXB28V470J	RESISTOR ARRAY	
R1101	EXB28V470J	RESISTOR ARRAY	
R1102	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1103	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1104	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1105	ERJ3GEYJ123	M 12K OHM,J,1/16W	
R1106	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1107	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1108	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1109	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1110	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1111	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1114	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1115	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1116	EXB28V470J	RESISTOR ARRAY	
R1118	EXB28V470J	RESISTOR ARRAY	
R1119	ERJ2GE0R00	M 0 OHM, 0.063W	
R1120	ERJ2GEJ470	M 47 OHM, 0.063W	
R1121	ERJ2GEJ220	M 22 OHM, 0.063W	
R1122	ERJ2GE0R00	M 0 OHM, 0.063W	
R1123	ERJ2GEJ220	M 22 OHM, 0.063W	
R1124	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1125	ERJ2GE0R00	M 0 OHM, 0.063W	
R1126	ERJ2GE0R00	M 0 OHM, 0.063W	
R1127	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1129	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1130	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1131	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1132	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1133	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1134	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1136	ERJ2GEJ220	M 22 OHM, 0.063W	
R1137	ERJ2GEJ220	M 22 OHM, 0.063W	
R1138	ERJ2GEJ220	M 22 OHM, 0.063W	
R1139	ERJ3EKF1000	M 100 OHM, 1/16W	
R1140	ERJ2GEJ220	M 22 OHM, 0.063W	
R1141	ERJ2GE0R00	M 0 OHM, 0.063W	
R1142	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1143	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1144	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1146	ERJ2GEJ220	M 22 OHM, 0.063W	
R1147	ERJ2GEJ103	M 10K OHM, 0.063W	
R1148	ERJ2GEJ220	M 22 OHM, 0.063W	
R1149	ERJ2GEJ220	M 22 OHM, 0.063W	
R1150	ERJ2GEJ220	M 22 OHM, 0.063W	
R1151	ERJ2GEJ221	M 220 OHM, 0.063W	
R1152	ERJ3EKF1000	M 100 OHM, 1/16W	
R1153	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1154	ERJ3EKF1000	M 100 OHM, 1/16W	
R1155	EXB28V220J	RESISTOR ARRAY	
R1156	EXB28V220J	RESISTOR ARRAY	
R1157	D1BZ2700A012	RESISTOR	
R1158	ERJ3EKF8201	M 8.2KOHM, 1/16W	
R1159	EXB28V220J	RESISTOR ARRAY	
R1160	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1161	EXB28V220J	RESISTOR ARRAY	
R1162	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1163	ERJ3EKF51R0	M 51 OHM, 1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1164	ERJ3EKF1000	M 100 OHM, 1/16W	
R1165	ERJ3EKF1000	M 100 OHM, 1/16W	
R1166	ERJ3EKF1000	M 100 OHM, 1/16W	
R1167	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1168	ERJ2GEJ103	M 10K OHM, 0.063W	
R1169	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1170	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1171	ERJ2GEJ103	M 10K OHM, 0.063W	
R1172	EXB28V102J	RESISTOR ARRAY	
R1173	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1174	ERJ3EKF1000	M 100 OHM, 1/16W	
R1175	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1176	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1177	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1178	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1179	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1180	ERJ3GEYJ273	M 27KOHM,J,1/16W	
R1181	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1182	ERJ3EKF1000	M 100 OHM, 1/16W	
R1183	ERJ3GEYJ273	M 27KOHM,J,1/16W	
R1184	ERJ3EKF1000	M 100 OHM, 1/16W	
R1185	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1186	ERJ2GEJ103	M 10K OHM, 0.063W	
R1187	ERJ3EKF1000	M 100 OHM, 1/16W	
R1188	ERJ2GEJ103	M 10K OHM, 0.063W	
R1189	ERJ3EKF1000	M 100 OHM, 1/16W	
R1190	ERJ3EKF1000	M 100 OHM, 1/16W	
R1191	ERJ3EKF1000	M 100 OHM, 1/16W	
R1192	ERJ3EKF1000	M 100 OHM, 1/16W	
R1193	ERJ3EKF1000	M 100 OHM, 1/16W	
R1194	ERJ3EKF1000	M 100 OHM, 1/16W	
R1195	ERJ3EKF1000	M 100 OHM, 1/16W	
R1196	ERJ2GEJ103	M 10K OHM, 0.063W	
R1197	ERJ3EKF1000	M 100 OHM, 1/16W	
R1199	ERJ3EKF1000	M 100 OHM, 1/16W	
R1200	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1201	ERJ3EKF1602	M 1.6K OHM, 1/16W	
R1202	ERJ3EKF1000	M 100 OHM, 1/16W	
R1203	ERJ3EKF1000	M 100 OHM, 1/16W	
R1204	ERJ3EKF1000	M 100 OHM, 1/16W	
R1205	ERJ3EKF1000	M 100 OHM, 1/16W	
R1206	ERJ3EKF1000	M 100 OHM, 1/16W	
R1207	ERJ2GEJ102	M 1K OHM, 0.063W	
R1208	ERJ2GEJ223X	M 22K OHM, 0.063W	
R1209	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1210	ERJ3EKF8201	M 8.2KOHM, 1/16W	
R1211	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1212	ERJ3EKF2701	M 2.7KOHM, 1/16W	
R1213	ERJ3EKF2701	M 2.7KOHM, 1/16W	
R1214	ERJ3EKF4703	M 470KOHM, 1/16W	
R1215	ERJ3EKF5102	M 51K OHM, 1/16W	
R1216	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1217	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1218	ERJ3EKF51R0	M 51 OHM, 1/16W	
R1219	ERJ2GEJ220	M 22 OHM, 0.063W	
R1220	ERJ2GE0R00	M 0 OHM, 0.063W	
R1221	ERJ3GEYJ123	M 12K OHM,J,1/16W	
R1222	ERJ2GE0R00	M 0 OHM, 0.063W	
R1223	ERJ2GE0R00	M 0 OHM, 0.063W	
R1224	ERJ2GE0R00	M 0 OHM, 0.063W	
R1225	ERJ2GE0R00	M 0 OHM, 0.063W	
R1226	ERJ2GEJ220	M 22 OHM, 0.063W	
R1227	ERJ2GEJ220	M 22 OHM, 0.063W	
R1228	ERJ2GEJ220	M 22 OHM, 0.063W	
R1229	ERJ2GE0R00	M 0 OHM, 0.063W	
R1230	ERJ2GEJ470X	M 47 OHM, 0.063W	
R1231	ERJ2GE0R00	M 0 OHM, 0.063W	
R1232	ERJ2GE0R00	M 0 OHM, 0.063W	
R1233	ERJ2GEJ470X	M 47 OHM, 0.063W	
R1236	ERJ2GEJ470X	M 47 OHM, 0.063W	
R1238	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1240	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1242	ERJ2GEJ103	M 10K OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1244	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1246	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1247	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R1249	ERJ2GE0R00	M 0 OHM, 0.063W	
R1250	ERJ2GEJ101	M 100 OHM, 0.063W	
R1252	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1256	EXB28V104J	RESISTOR ARRAY	
R1257	EXB28V104J	RESISTOR ARRAY	
R1259	ERJ3EKF1002	M 10KOHM, 1/16W	
R1260	ERJ3EKF6801	M 6.8KOHM, 1/16W	
R1261	ERJ3EKF1002	M 10KOHM, 1/16W	
R1262	ERJ3EKF3901	M 3.9KOHM, 0.063W	
R1264	ERJ2GEJ331	M 330 OHM, 0.063W	
R1265	ERJ3EKF1002	M 10KOHM, 1/16W	
R1266	ERJ2GEJ220	M 22 OHM, 0.063W	
R1267	ERJ3EKF1602	M 1.6K OHM, 1/16W	
R1268	ERJ2GEJ103	M 10K OHM, 0.063W	
R1269	ERJ3EKF2201	M 2.2KOHM, 1/16W	
R1270	ERJ2GEJ102	M 1K OHM, 0.063W	
R1271	ERJ3EKF1072	M 1.07KOHM, 1/16W	
R1272	ERJ2GEJ220	M 22 OHM, 0.063W	
R1273	EXB28V472J	RESISTOR ARRAY	
R1274	ERJ2GEJ102	M 1K OHM, 0.063W	
R1275	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1276	ERJ2GEJ560	M 56 OHM, 0.063W	
R1278	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1279	EXB28V102J	RESISTOR ARRAY	
R1281	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1282	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1285	EXB28V220J	RESISTOR ARRAY	
R1286	EXB28V220J	RESISTOR ARRAY	
R1287	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1288	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1289	ERJ2GEJ103	M 10K OHM, 0.063W	
R1291	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1292	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1293	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1294	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1295	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1296	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R1297	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1298	ERJ3GEYJ105	M 1M OHM,J,1/16W	
R1299	ERJ2GEJ560	M 56 OHM, 0.063W	
R1301	EXB28V220J	RESISTOR ARRAY	
R1304	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R1307	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1308	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1309	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1310	ERJ2GEJ3R0X	M 3 OHM, 0.063W	
R1312	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R1313	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R1314	EXB28V560J	RESISTOR ARRAY	
R1315	ERJ3EKF1002	M 10KOHM, 1/16W	
R1316	ERJ3EKF1002	M 10KOHM, 1/16W	
R1317	ERJ3EKF1001	M 1K OHM, 0.063W	
R1318	ERJ2GEJ330	M 33 OHM, 0.063W	
R1319	ERJ3EKF1001	M 1K OHM, 0.063W	
R1320	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1321	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1322	ERJ3EKF1002	M 10KOHM, 1/16W	
R1323	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1324	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1325	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1326	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1327	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1328	ERJ2GEJ103	M 10K OHM, 0.063W	
R1329	EXB28V220J	RESISTOR ARRAY	
R1332	ERJ3EKF1002	M 10KOHM, 1/16W	
R1333	ERJ3EKF1691	M1.69KOHM, 1/16W	
R1334	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1335	ERJ3GEYJ123	M 12K OHM,J,1/16W	
R1336	ERJ3EKF5903	M 590KOHM, 1/16W	
R1337	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1338	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1339	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1340	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1341	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1345	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1346	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1347	EXB28V102J	RESISTOR ARRAY	
R1348	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1349	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1350	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	
R1351	ERJ2GEJ103	M 10K OHM, 0.063W	
R1352	ERJ2GEJ101	M 100 OHM, 0.063W	
R1353	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1354	EXB28V560J	RESISTOR ARRAY	
R1355	EXB28V560J	RESISTOR ARRAY	
R1356	EXB28V560J	RESISTOR ARRAY	
R1357	ERJ2GEJ103	M 10K OHM, 0.063W	
R1358	EXB28V560J	RESISTOR ARRAY	
R1359	EXB28V560J	RESISTOR ARRAY	
R1360	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1361	ERJ2GEJ103	M 10K OHM, 0.063W	
R1362	ERJ6GEYJ100	M 10 OHM,J,1/10W	
R1363	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1364	ERJ6GEYJ100	M 10 OHM,J,1/10W	
R1368	EXB28V560J	RESISTOR ARRAY	
R1369	EXB28V560J	RESISTOR ARRAY	
R1370	ERJ6GEYJ560	M 56 OHM,J,1/10W	
R1371	EXB28V560J	RESISTOR ARRAY	
R1374	ERJ3EKF1002	M 10KOHM, 1/16W	
R1378	EXB28V560J	RESISTOR ARRAY	
R1380	ERJ2GEJ101	M 100 OHM, 0.063W	
R1381	ERJ2GEJ101	M 100 OHM, 0.063W	
R1382	ERJ2GEJ101	M 100 OHM, 0.063W	
R1383	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1384	ERJ2GEJ331	M 330 OHM, 0.063W	
R1385	ERJ3EKF5101	M 5.1KOHM, 1/16W	
R1386	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1387	ERJ2GEJ333X	M 33K OHM, 0.063W	
R1388	ERJ2GEJ101	M 100 OHM, 0.063W	
R1389	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1390	ERJ3EKF5101	M 5.1KOHM, 1/16W	
R1391	ERJ3EKF5621	M5.62KOHM, 1/16W	
R1392	ERJ3EKF5621	M5.62KOHM, 1/16W	
R1393	ERJ3EKF1101	M 1.1KOHM, 1/16W	
R1394	ERJ3EKF1101	M 1.1KOHM, 1/16W	
R1395	ERJ3EKF1101	M 1.1KOHM, 1/16W	
R1396	ERJ3GEYJ124	M 120KOHM,J,1/16W	
R1397	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1398	ERJ3EKF3923	M 392KOHM, 1/16W	
R1399	ERJ3EKF3923	M 392KOHM, 1/16W	
R1400	ERJ3EKF1803	M 180KOHM, 0.063W	
R1401	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1402	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	
R1403	ERJ3GEYJ105	M 1M OHM,J,1/16W	
R1404	ERJ3GEYJ510	M 51 OHM,J,1/16W	
R1405	ERJ3GEYJ510	M 51 OHM,J,1/16W	
R1406	ERJ3GEYJ391	M 390 OHM,J,1/16W	
R1407	ERJ3GEYJ561	M 560 OHM,J,1/16W	
R1408	ERJ2GEJ103	M 10K OHM, 0.063W	
R1409	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1410	ERJ3GEYJ273	M 27KOHM,J,1/16W	
R1419	ERJ3GEYJ151	M 150 OHM,J,1/16W	
R1420	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1421	EXB28V220J	RESISTOR ARRAY	
R1422	EXB28V220J	RESISTOR ARRAY	
R1423	EXB28V220J	RESISTOR ARRAY	
R1424	EXB28V220J	RESISTOR ARRAY	
R1425	EXB28V220J	RESISTOR ARRAY	
R1426	EXB28V220J	RESISTOR ARRAY	
R1427	EXB28V220J	RESISTOR ARRAY	
R1428	EXB28V220J	RESISTOR ARRAY	
R1429	EXB28V220J	RESISTOR ARRAY	
R1430	EXB28V220J	RESISTOR ARRAY	

Ref. No.	Part No.	Part Name & Description	Remarks
R1431	EXB28V220J	RESISTOR ARRAY	
R1432	EXB28V220J	RESISTOR ARRAY	
R1433	EXB28V220J	RESISTOR ARRAY	
R1434	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1435	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1436	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1437	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1438	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1439	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1441	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1442	EXB28V220J	RESISTOR ARRAY	
R1443	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1444	EXB28V220J	RESISTOR ARRAY	
R1445	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1446	EXB28V220J	RESISTOR ARRAY	
R1447	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1448	EXB28V220J	RESISTOR ARRAY	
R1451	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1452	EXB28V220J	RESISTOR ARRAY	
R1453	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1454	EXB28V220J	RESISTOR ARRAY	
R1455	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1456	EXB28V220J	RESISTOR ARRAY	
R1457	EXB28V220J	RESISTOR ARRAY	
R1458	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1459	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1460	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1469	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1470	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1471	EXB28V220J	RESISTOR ARRAY	
R1472	EXB28V220J	RESISTOR ARRAY	
R1473	EXB28V220J	RESISTOR ARRAY	
R1474	EXB28V220J	RESISTOR ARRAY	
R1475	EXB28V220J	RESISTOR ARRAY	
R1476	EXB28V220J	RESISTOR ARRAY	
R1477	EXB28V220J	RESISTOR ARRAY	
R1478	EXB28V220J	RESISTOR ARRAY	
R1479	EXB28V220J	RESISTOR ARRAY	
R1480	EXB28V220J	RESISTOR ARRAY	
R1481	EXB38V470JV	RESISTOR ARRAY	
R1482	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1483	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1484	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1485	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1487	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1488	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1489	EXB38V470JV	RESISTOR ARRAY	
R1490	EXB38V470JV	RESISTOR ARRAY	
R1491	EXB38V470JV	RESISTOR ARRAY	
R1492	EXB38V470JV	RESISTOR ARRAY	
R1493	EXB38V470JV	RESISTOR ARRAY	
R1494	EXB38V470JV	RESISTOR ARRAY	
R1495	EXB38V470JV	RESISTOR ARRAY	
R1496	EXB38V470JV	RESISTOR ARRAY	
R1497	EXB38V470JV	RESISTOR ARRAY	
R1498	EXB38V470JV	RESISTOR ARRAY	
R1499	EXB38V470JV	RESISTOR ARRAY	
R1500	EXB38V470JV	RESISTOR ARRAY	
R1501	EXB38V470JV	RESISTOR ARRAY	
R1502	EXB38V470JV	RESISTOR ARRAY	
R1503	EXB38V470JV	RESISTOR ARRAY	
R1504	EXB38V470JV	RESISTOR ARRAY	
R1505	EXB38V470JV	RESISTOR ARRAY	
R1507	EXB38V470JV	RESISTOR ARRAY	
R1508	EXB38V470JV	RESISTOR ARRAY	
R1509	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1510	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1511	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1512	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1513	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1514	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1515	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1517	ERJ3GEYJ470	M 47 OHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1518	ERJ3GEYJ221	M 220 OHM,J,1/16W	
R1519	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1520	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1521	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1522	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1523	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1524	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1525	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1526	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1527	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1528	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1529	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1535	ERJ2GEJ103	M 10K OHM, 0.063W	
R1542	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1543	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R1545	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1550	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1559	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1560	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1561	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1563	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1564	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1588	ERJ2GEJ102	M 1K OHM, 0.063W	
R1589	EXB28V560J	RESISTOR ARRAY	
R1611	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1618	ERJ3GEYJ220	M 22 OHM,J,1/16W	
R1620	ERJ3GEYJ561	M 560 OHM,J,1/16W	
R1625	EXB28V470J	RESISTOR ARRAY	
R1626	EXB28V470J	RESISTOR ARRAY	
R1627	EXB28V470J	RESISTOR ARRAY	
R1628	EXB28V470J	RESISTOR ARRAY	
R1629	EXB28V470J	RESISTOR ARRAY	
R1630	EXB28V220J	RESISTOR ARRAY	
R1631	EXB28V220J	RESISTOR ARRAY	
R1632	EXB28V220J	RESISTOR ARRAY	
R1633	EXB28V220J	RESISTOR ARRAY	
R1634	EXB28V220J	RESISTOR ARRAY	
R1635	EXB28V220J	RESISTOR ARRAY	
R1650	EXB28V470J	RESISTOR ARRAY	
R1651	EXB28V470J	RESISTOR ARRAY	
R1652	EXB28V470J	RESISTOR ARRAY	
R1653	EXB28V470J	RESISTOR ARRAY	
R1654	EXB28V470J	RESISTOR ARRAY	
R1657	ERJ2GEJ470	M 47 OHM, 0.063W	
R1658	ERJ2GEJ470	M 47 OHM, 0.063W	
R1659	ERJ2GEJ470	M 47 OHM, 0.063W	
R1660	ERJ2GEJ470	M 47 OHM, 0.063W	
R1662	ERJ3EKF5600	M 560 OHM, 1/16W	
R1663	ERJ3EKF5600	M 560 OHM, 1/16W	
R1664	ERJ3EKF5600	M 560 OHM, 1/16W	
R1665	ERJ3EKF5600	M 560 OHM, 1/16W	
R1666	ERJ3EKF7150	M 715 OHM, 1/16W	
R1668	ERJ2GEJ221	M 220 OHM, 0.063W	
R1669	ERJ2GEJ470	M 47 OHM, 0.063W	
R1670	ERJ2GEJ470	M 47 OHM, 0.063W	
R1671	ERJ2GEJ470	M 47 OHM, 0.063W	
R1672	ERJ2GEJ470	M 47 OHM, 0.063W	
R1674	ERJ3EKF5600	M 560 OHM, 1/16W	
R1675	ERJ3EKF5600	M 560 OHM, 1/16W	
R1677	ERJ2GEJ221	M 220 OHM, 0.063W	
R1678	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1679	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1680	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1681	ERJ2GEJ103	M 10 KOHM, 0.063W	
R1682	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1683	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1691	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1694	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1695	ERJ2GEJ222	M 2.2KOHM, 0.063W	
R1696	ERJ3EKF1202	M 1.2K OHM, 1/16W	
R1697	ERJ3EKF1202	M 1.2K OHM, 1/16W	
R1710	ERJ2GEJ330	M 33 OHM, 0.063W	
R1709	ERJ2GEJ330	M 33 OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1711	ERJ2GEJ332	M 3.3KOHM, 0.063W	
R1712	ERJ2GEJ332	M 3.3KOHM, 0.063W	
R1721	ERJ3GEYJ512	M 5.1KOHM,J,1/16W	
R1722	ERJ3EKF1502	M 1.5K OHM, 1/16W	
R1723	ERJ3EKF5601	M 5.6KOHM, 1/16W	
R1724	ERJ3EKF6491	M 6.49KOHM, 1/16W	
R1725	ERJ3EKF1502	M 1.5K OHM, 1/16W	
R1726	ERJ3EKF8201	M 8.2KOHM, 1/16W	
R1727	EXB28V101J	RESISTOR ARRAY	
R1728	EXB28V101J	RESISTOR ARRAY	
R1729	EXB28V101J	RESISTOR ARRAY	
R1730	ERJ2GEJ103	M 10K OHM, 0.063W	
R1733	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1734	ERJ2GEJ100	M 10 OHM, 0.063W	
R1735	ERJ2GEJ100	M 10 OHM, 0.063W	
R1736	ERJ2GEJ100	M 10 OHM, 0.063W	
R1737	ERJ2GEJ103	M 10K OHM, 0.063W	
R1740	ERJ2GEJ100	M 10 OHM, 0.063W	
R1741	ERJ2GEJ100	M 10 OHM, 0.063W	
R1744	ERJ2GEJ103	M 10K OHM, 0.063W	
R1748	ERJ2GEJ103	M 10K OHM, 0.063W	
R1749	ERJ2GEJ330	M 33 OHM, 0.063W	
R1759	ERJ2GEJ100	M 10 OHM, 0.063W	
R1760	ERJ2GEJ222	M 2.2KOHM, 0.063W	
R1764	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1767	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1768	ERJ2GE0R00	M 0 OHM, 0.063W	
R1774	ERJ3GEYJ100	M 10 OHM,J,1/16W	
R1775	ERJ3GEYJ100	M 10 OHM,J,1/16W	
R1776	ERJ3GEYJ100	M 10 OHM,J,1/16W	
R1783	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1784	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1785	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1786	ERJ3GEYJ100	M 10 OHM,J,1/16W	
R2001	ERJ3EKF5601	M 5.6KOHM, 1/16W	
R2002	ERJ3EKF1871	M 1.87KOHM, 1/16W	
R2003	ERJ3EKF3741	M 3.74OHM, 0.063W	
R2004	ERJ3EKF1132	M 1.13KOHM, 1/16W	
R2005	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R2006	ERJ3EKF5601	M 5.6KOHM, 1/16W	
R2007	ERJ3EKF1871	M 1.87KOHM, 1/16W	
R2008	ERJ3EKF3741	M 3.74OHM, 0.063W	
R2009	ERJ3EKF1132	M 1.13KOHM, 1/16W	
R2010	ERJ3EKF5601	M 5.6KOHM, 1/16W	
R2011	ERJ3EKF1871	M 1.87KOHM, 1/16W	
R2012	ERJ3EKF3741	M 3.74OHM, 0.063W	
R2013	ERJ3EKF1132	M 1.13KOHM, 1/16W	
R2029	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R2030	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R2035	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2036	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2037	ERJ3GEYJ181	M 180 OHM,J,1/16W	
R2038	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	
R2201	EXB38V220J	RESISTOR ARRAY	
R9101	D0AE625JA179	RESISTOR	⚠
R9601	ERX2SJR47E	M 0.47OHM,J, 2W	
R9630	ERJ14YJ3R3U	M 3.3 OHM,J, 1/4W	
R9631	ERJ8GEYJ220	M 22 OHM, J,1/4W	
R9632	ERJ14YJ5R6U	M 5.6 OHM,J, 1/4W	
R9633	ERJ8GEYJ100	M 10 OHM, J,1/4W	
R9634	ERJ8GEYJ120	M 12 OHM, J,1/4W	(B-PCB)
R9636	ERJ14YJ3R3U	M 3.3 OHM,J, 1/4W	
R9637	ERJ8GEYJ220	M 22 OHM, J,1/4W	
R9638	ERJ14YJ5R6U	M 5.6 OHM,J, 1/4W	
R9639	ERJ8GEYJ100	M 10 OHM, J,1/4W	
R9640	ERJ8GEYJ120	M 12 OHM, J,1/4W	(B-PCB)
R9653	D0XGR22J0004	RESISTOR(B-PCB)	
[CAPACITORS]			
C1001	F2G1A101A029	CAPACITOR	
C1002	F1G1C104A077	CAPACITOR	
C1003	F1G1C104A077	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1004	F1G1C104A077	CAPACITOR	
C1005	F1G1C104A077	CAPACITOR	
C1006	ECJ1VF1A225Z	CAPACITOR	
C1007	F1G1H1020008	CAPACITOR	
C1008	F1G1C104A077	CAPACITOR	
C1009	F1G1C104A077	CAPACITOR	
C1010	F1G1C1030008	CAPACITOR	
C1011	ECJ1VF1A225Z	CAPACITOR	
C1012	ECJ1VF1A225Z	CAPACITOR	
C1013	F1G1C104A077	CAPACITOR	
C1014	F1G1C104A077	CAPACITOR	
C1015	F1G1C104A077	CAPACITOR	
C1016	F1G1C104A077	CAPACITOR	
C1017	F1G1C104A077	CAPACITOR	
C1018	F1G1C104A077	CAPACITOR	
C1019	F1G1C104A077	CAPACITOR	
C1020	F1G1C104A077	CAPACITOR	
C1021	F1G1C104A077	CAPACITOR	
C1022	ECJ2FF1A106Z	C 10UF, 10V	
C1023	F1G1C1030008	CAPACITOR	
C1024	F1G1C1030008	CAPACITOR	
C1025	F1G1C1030008	CAPACITOR	
C1026	F1G1C1030008	CAPACITOR	
C1027	F1G1C104A077	CAPACITOR	
C1028	ECJ2FF1A106Z	C 10UF, 10V	
C1029	F1G1C104A077	CAPACITOR	
C1030	F1G1C104A077	CAPACITOR	
C1031	F1G1C104A077	CAPACITOR	
C1032	F1G1C1030008	CAPACITOR	
C1033	F1G1C104A077	CAPACITOR	
C1034	F1G1C1030008	CAPACITOR	
C1035	F1G1C104A077	CAPACITOR	
C1036	F1G1C104A077	CAPACITOR	
C1037	ECJ2FF1A106Z	C 10UF, 10V	
C1038	ECJ2FF1A106Z	C 10UF, 10V	
C1039	ECJ2FF1A106Z	C 10UF, 10V	
C1040	ECJ2FF1A106Z	C 10UF, 10V	
C1041	F1G1C104A077	CAPACITOR	
C1042	F1G1C104A077	CAPACITOR	
C1043	F1G1C104A077	CAPACITOR	
C1044	F1G1C104A077	CAPACITOR	
C1045	F1G1C104A077	CAPACITOR	
C1046	F1G1C104A077	CAPACITOR	
C1047	F1G1C104A077	CAPACITOR	
C1048	F1G1C104A077	CAPACITOR	
C1049	F1G1C104A077	CAPACITOR	
C1050	F1G1C104A077	CAPACITOR	
C1051	ECJ2FF1A106Z	C 10UF, 10V	
C1052	F1G1C104A077	CAPACITOR	
C1053	F1G1C104A077	CAPACITOR	
C1054	F1G1C104A077	CAPACITOR	
C1055	F1G1C104A077	CAPACITOR	
C1057	F1G1C104A077	CAPACITOR	
C1060	F1G1C104A077	CAPACITOR	
C1063	F1G1C104A077	CAPACITOR	
C1066	F1G1C104A077	CAPACITOR	
C1067	F1G1C104A077	CAPACITOR	
C1068	F1G1C104A077	CAPACITOR	
C1069	F1G1C104A077	CAPACITOR	
C1072	F1G1A823A032	CAPACITOR	
C1073	F1G1C104A077	CAPACITOR	
C1075	F1G1C104A077	CAPACITOR	
C1076	F1G1C104A077	CAPACITOR	
C1077	F1G1C104A077	CAPACITOR	
C1078	F1G1C104A077	CAPACITOR	
C1079	F1G1C104A077	CAPACITOR	
C1080	F1G1C104A077	CAPACITOR	
C1083	F1G1C104A077	CAPACITOR	
C1084	F1G1C104A077	CAPACITOR	
C1086	F1G1C104A077	CAPACITOR	
C1087	F2G0J4700010	CAPACITOR	
C1089	ECJ2FF1A106Z	C 10UF, 10V	
C1093	ECJ1VC1H080C	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1094	ECJ1VC1H080C	CAPACITOR	
C1095	F1J1A106A024	CAPACITOR	
C1097	F1G1C104A077	CAPACITOR	
C1098	F1J1E105A197	CAPACITOR	
C1099	F1G1H1020008	CAPACITOR	
C1100	F1G1H1020008	CAPACITOR	
C1101	F1J0J2260004	CAPACITOR	
C1102	F1G1C104A077	CAPACITOR	
C1103	F1G1C104A077	CAPACITOR	
C1104	F1G1C104A077	CAPACITOR	
C1105	F1G1C104A077	CAPACITOR	
C1106	F1G1C104A077	CAPACITOR	
C1107	F1G1C104A077	CAPACITOR	
C1108	F1G1C104A077	CAPACITOR	
C1109	F2G0J4700010	CAPACITOR	
C1110	ECJ2FF1A106Z	C 10UF, 10V	
C1111	F1G1C104A077	CAPACITOR	
C1112	F1G1H1020008	CAPACITOR	
C1113	F1G1H1020008	CAPACITOR	
C1114	ECJ1VF1A225Z	CAPACITOR	
C1115	F1G1C104A077	CAPACITOR	
C1116	ECJ2FF1A106Z	C 10UF, 10V	
C1117	F1G1C104A077	CAPACITOR	
C1118	F1G1C104A077	CAPACITOR	
C1119	F1G1C104A077	CAPACITOR	
C1120	ECJ1VF1A225Z	CAPACITOR	
C1121	F1G1C104A077	CAPACITOR	
C1122	F1G1C104A077	CAPACITOR	
C1123	ECJ1VF1A225Z	CAPACITOR	
C1124	F1G1C104A077	CAPACITOR	
C1125	F2G1C2200010	CAPACITOR	
C1126	F1G1C1030008	CAPACITOR	
C1127	ECJ1VF1A225Z	CAPACITOR	
C1128	F1G1C104A077	CAPACITOR	
C1129	F1G1C104A077	CAPACITOR	
C1130	F1G1C104A077	CAPACITOR	
C1131	F1G1C104A077	CAPACITOR	
C1132	F1G1C104A077	CAPACITOR	
C1133	F1G1C104A077	CAPACITOR	
C1134	F1G1C104A077	CAPACITOR	
C1135	F1G1C104A077	CAPACITOR	
C1136	F1G1C104A077	CAPACITOR	
C1137	F1G1C104A077	CAPACITOR	
C1138	F1G1C104A077	CAPACITOR	
C1139	F1G1H1020008	CAPACITOR	
C1140	F1H1A1050029	CAPACITOR	
C1141	ECJ2FF1A106Z	C 10UF, 10V	
C1142	F1G1C104A077	CAPACITOR	
C1143	F1G1C104A077	CAPACITOR	
C1144	F1G1C104A077	CAPACITOR	
C1145	F1G1C104A077	CAPACITOR	
C1146	ECJ2FF1A106Z	C 10UF, 10V	
C1147	ECJ2FF1A106Z	C 10UF, 10V	
C1148	F1G1C104A077	CAPACITOR	
C1149	F1H1E105A126	CAPACITOR	
C1150	F1G1C104A077	CAPACITOR	
C1152	F2G1C2200010	CAPACITOR	
C1153	F1H1E105A126	CAPACITOR	
C1154	ECJ2FF1A106Z	C 10UF, 10V	
C1155	EEEHB0G101R	E 100UF, 4V	
C1156	F1H1E105A126	CAPACITOR	
C1157	F1G1C104A077	CAPACITOR	
C1158	F1G1C104A077	CAPACITOR	
C1159	F1G1C104A077	CAPACITOR	
C1160	F1G1C104A077	CAPACITOR	
C1161	F2G0J3300014	CAPACITOR	
C1162	ECJ2FF1A106Z	C 10UF, 10V	
C1164	ECJ2FF1A106Z	C 10UF, 10V	
C1165	ECJ1VC1H331J	CAPACITOR	
C1166	F1H1E105A126	CAPACITOR	
C1167	F1G1H1020008	CAPACITOR	
C1168	F1G1C104A077	CAPACITOR	
C1169	F1H1A1050029	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1170	ECJ2FF1A106Z	C 10UF, 10V	
C1171	F1G1C104A077	CAPACITOR	
C1172	ECJ1VF1A225Z	CAPACITOR	
C1173	F2G1E3300010	CAPACITOR	
C1174	ECJ1VF1A225Z	CAPACITOR	
C1175	ECJ2FF1A106Z	C 10UF, 10V	
C1176	F1G1C104A077	CAPACITOR	
C1177	F1J1A106A024	CAPACITOR	
C1178	ECJ1VF1A225Z	CAPACITOR	
C1179	ECJ1VF1A225Z	CAPACITOR	
C1180	F1G1C104A077	CAPACITOR	
C1181	ECJ2FF1A106Z	C 10UF, 10V	
C1182	ECJ2FF1A106Z	C 10UF, 10V	
C1183	F1H1A1050029	CAPACITOR	
C1184	F1J1E105A197	CAPACITOR	
C1185	EEEFK1E101P	CAPACITOR	
C1186	F1H1E104A030	CAPACITOR	
C1187	ECJ2FF1A106Z	C 10UF, 10V	
C1188	F1G1C104A077	CAPACITOR	
C1189	F2G1C2200010	CAPACITOR	
C1190	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1191	F2G1C2200010	CAPACITOR	
C1192	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1193	F1G1C104A077	CAPACITOR	
C1194	F1G1C104A077	CAPACITOR	
C1195	F2G1E3300010	CAPACITOR	
C1196	F1G1C104A077	CAPACITOR	
C1197	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1198	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1199	F1H1H151A792	CAPACITOR	
C1200	F1G1C104A077	CAPACITOR	
C1201	F1H1C105A008	CAPACITOR	
C1202	F1G1C104A077	CAPACITOR	
C1203	F1H1C105A008	CAPACITOR	
C1204	ECJ1VC1H100C	C 10PF, 50V	
C1205	ECJ1VC1H100C	C 10PF, 50V	
C1206	EEEHB0G101R	E 100UF, 4V	
C1207	ECJ0EB1H221K	CAPACITOR	
C1208	F1H1E105A126	CAPACITOR	
C1209	F1G1C104A077	CAPACITOR	
C1210	F1H1E105A126	CAPACITOR	
C1211	F1G1C104A077	CAPACITOR	
C1212	F1G1C104A077	CAPACITOR	
C1213	EEEHB0G101R	E 100UF, 4V	
C1214	F1G1H1020008	CAPACITOR	
C1215	EEEHB0G101R	E 100UF, 4V	
C1216	F1G1C104A077	CAPACITOR	
C1217	F1G1H1020008	CAPACITOR	
C1218	F1G1H1020008	CAPACITOR	
C1219	ECJ1VF1A225Z	CAPACITOR	
C1220	F1H1E105A126	CAPACITOR	
C1221	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1222	F2G1E3300010	CAPACITOR	
C1223	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1224	F2G1E3300010	CAPACITOR	
C1225	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1226	F2G1E3300010	CAPACITOR	
C1227	F1G1C104A077	CAPACITOR	
C1229	F1H1C105A008	CAPACITOR	
C1230	F1H1C105A008	CAPACITOR	
C1231	F1H1C105A008	CAPACITOR	
C1232	F1H1C105A008	CAPACITOR	
C1233	F1H1C105A008	CAPACITOR	
C1234	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1235	F1H1C105A008	CAPACITOR	
C1236	F1H1C105A008	CAPACITOR	
C1237	F1H1C105A008	CAPACITOR	
C1238	F1H1C105A008	CAPACITOR	
C1239	F1H1C105A008	CAPACITOR	
C1240	F1H1C105A008	CAPACITOR	
C1241	F1H1E105A126	CAPACITOR	
C1242	F1H1E105A126	CAPACITOR	
C1243	ECJ1VF1A225Z	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1244	F1G1C104A077	CAPACITOR	
C1245	F1G1H1020008	CAPACITOR	
C1246	F1H1C105A008	CAPACITOR	
C1247	F1H1C105A008	CAPACITOR	
C1248	F1G1C104A077	CAPACITOR	
C1249	F1H1C105A008	CAPACITOR	
C1250	F1H1C105A008	CAPACITOR	
C1251	F1H1C105A008	CAPACITOR	
C1252	ECJ1VF1A225Z	CAPACITOR	
C1253	F1H1C105A008	CAPACITOR	
C1254	F1H1C105A008	CAPACITOR	
C1255	F1H1C105A008	CAPACITOR	
C1256	F1G1C104A077	CAPACITOR	
C1257	F1H1C105A008	CAPACITOR	
C1258	F2G1E4R70007	CAPACITOR	
C1259	EEEHB0G101R	E 100UF, 4V	
C1260	ECJ0EB1H821K	CAPACITOR	
C1261	F1G1C104A077	CAPACITOR	
C1262	ECJ0EB1H821K	CAPACITOR	
C1263	F1G1H1020008	CAPACITOR	
C1264	ECJ0EB1H821K	CAPACITOR	
C1265	F1H1C105A008	CAPACITOR	
C1266	F1H1E105A126	CAPACITOR	
C1267	F1H1E105A126	CAPACITOR	
C1268	F1H1E105A126	CAPACITOR	
C1269	F1G1C104A077	CAPACITOR	
C1270	ECJ2FF1A106Z	C 10UF, 10V	
C1271	F1G1C104A077	CAPACITOR	
C1272	F1G1C104A077	CAPACITOR	
C1273	F1G1C104A077	CAPACITOR	
C1274	F1G1C104A077	CAPACITOR	
C1275	F1G1C104A077	CAPACITOR	
C1276	F1G1C104A077	CAPACITOR	
C1277	F1G1C104A077	CAPACITOR	
C1278	F1G1C104A077	CAPACITOR	
C1279	F1G1C104A077	CAPACITOR	
C1280	F1G1C104A077	CAPACITOR	
C1281	F1J1A106A024	CAPACITOR	
C1282	ECJ0EB1H821K	CAPACITOR	
C1283	F1G1C104A077	CAPACITOR	
C1284	F1G1C104A077	CAPACITOR	
C1285	F1G1C104A077	CAPACITOR	
C1286	F1G1C104A077	CAPACITOR	
C1287	F1G1C104A077	CAPACITOR	
C1288	F1G1C104A077	CAPACITOR	
C1289	F1G1C104A077	CAPACITOR	
C1290	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1291	F1G1C104A077	CAPACITOR	
C1292	F1G1C104A077	CAPACITOR	
C1293	F1G1C104A077	CAPACITOR	
C1294	F1G1C104A077	CAPACITOR	
C1295	F1G1C104A077	CAPACITOR	
C1296	F1G1C104A077	CAPACITOR	
C1297	F1G1C104A077	CAPACITOR	
C1298	F1G1C104A077	CAPACITOR	
C1299	F1G1C104A077	CAPACITOR	
C1300	F1G1C104A077	CAPACITOR	
C1301	F1G1C104A077	CAPACITOR	
C1302	F1G1C104A077	CAPACITOR	
C1303	F1G1C104A077	CAPACITOR	
C1304	F1G1C104A077	CAPACITOR	
C1305	F1G1C104A077	CAPACITOR	
C1306	F1G1C104A077	CAPACITOR	
C1307	F1G1C104A077	CAPACITOR	
C1308	F1G1C104A077	CAPACITOR	
C1309	F1G1C104A077	CAPACITOR	
C1310	F1G1C104A077	CAPACITOR	
C1311	F1G1C104A077	CAPACITOR	
C1312	F1G1C104A077	CAPACITOR	
C1313	F1G1C104A077	CAPACITOR	
C1314	F1G1C104A077	CAPACITOR	
C1315	F1G1C104A077	CAPACITOR	
C1316	F1G1C104A077	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1317	F1G1C104A077	CAPACITOR	
C1318	F1G1C104A077	CAPACITOR	
C1319	F1G1C104A077	CAPACITOR	
C1320	F1G1C104A077	CAPACITOR	
C1321	F1G1C104A077	CAPACITOR	
C1322	F1G1C104A077	CAPACITOR	
C1323	F1G1C104A077	CAPACITOR	
C1324	F1G1C104A077	CAPACITOR	
C1325	F1G1C104A077	CAPACITOR	
C1326	F1G1C104A077	CAPACITOR	
C1327	F1G1C104A077	CAPACITOR	
C1328	F2G1E3300010	CAPACITOR	
C1329	F1H1C105A008	CAPACITOR	
C1330	ECJ1VB1H152K	CAPACITOR	
C1331	F1H1A1050029	CAPACITOR	
C1332	F1G1C104A077	CAPACITOR	
C1333	ECJ1VC1H221J	CAPACITOR	
C1334	F2G0J4700010	CAPACITOR	
C1335	ECJ1VF1C474Z	CAPACITOR	
C1336	ECJ1VF1C474Z	CAPACITOR	
C1337	F1H1C105A008	CAPACITOR	
C1338	F1H1C105A008	CAPACITOR	
C1339	F1H1C105A008	CAPACITOR	
C1340	F1H1C105A008	CAPACITOR	
C1341	F1H1C105A008	CAPACITOR	
C1342	F1H1C105A008	CAPACITOR	
C1343	ECJ1VB1H472K	C 4700PF, K, 50V	
C1344	ECJ2XB1C224K	C 0.22UF, K, 16V	
C1345	ECJ2XB1C224K	C 0.22UF, K, 16V	
C1346	F1H1H8210002	CAPACITOR	
C1347	ECJ1VB1H332K	CAPACITOR	
C1349	EEEHB0G101R	E 100UF, 4V	
C1350	ECJ2FF1A106Z	C 10UF, 10V	
C1351	EEEHB0G101R	E 100UF, 4V	
C1352	ECJ2FF1A106Z	C 10UF, 10V	
C1353	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1354	F1G1C104A077	CAPACITOR	
C1355	ECJ0EB1H152K	CAPACITOR	
C1356	F1G1C104A077	CAPACITOR	
C1357	F1G1C104A077	CAPACITOR	
C1358	F2G1E4R70007	CAPACITOR	
C1360	F2G1C2200010	CAPACITOR	
C1361	EEEHB0G101R	E 100UF, 4V	
C1362	EEEHB0G101R	E 100UF, 4V	
C1364	F1G1C104A077	CAPACITOR	
C1366	F1G1C104A077	CAPACITOR	
C1367	ECJ2FF1C475Z	CAPACITOR	
C1370	F1G1C104A077	CAPACITOR	
C1371	F1G1C104A077	CAPACITOR	
C1372	F1G1C104A077	CAPACITOR	
C1373	F1J0J2260004	CAPACITOR	
C1374	F1G1C104A077	CAPACITOR	
C1375	F1G1C104A077	CAPACITOR	
C1376	F1G1C104A077	CAPACITOR	
C1377	F1G1C104A077	CAPACITOR	
C1378	F1H1H333A220	CAPACITOR	
C1379	F1G1C104A077	CAPACITOR	
C1380	F1G1C104A077	CAPACITOR	
C1381	F1J0J2260004	CAPACITOR	
C1382	F1G1C104A077	CAPACITOR	
C1383	F1G1C104A077	CAPACITOR	
C1384	F1G1C104A077	CAPACITOR	
C1385	F1G1H1020008	CAPACITOR	
C1386	F1J0J2260004	CAPACITOR	
C1387	F1G1C104A077	CAPACITOR	
C1388	F1G1C104A077	CAPACITOR	
C1389	F1G1C104A077	CAPACITOR	
C1390	ECJ0EB1H221K	CAPACITOR	
C1391	F1G1C104A077	CAPACITOR	
C1392	F1G1C104A077	CAPACITOR	
C1393	F1J1C106A059	CAPACITOR	
C1395	F1G1C104A077	CAPACITOR	
C1396	F1G1C104A077	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1399	F1G1C104A077	CAPACITOR	
C1401	F1G1C104A077	CAPACITOR	
C1402	F1G1C104A077	CAPACITOR	
C1403	F1G1C104A077	CAPACITOR	
C1404	F1G1C104A077	CAPACITOR	
C1405	F1G1C104A077	CAPACITOR	
C1406	F1G1C104A077	CAPACITOR	
C1407	F1G1C104A077	CAPACITOR	
C1408	F1G1C104A077	CAPACITOR	
C1409	F1G1C104A077	CAPACITOR	
C1410	F1G1C104A077	CAPACITOR	
C1411	F1G1C104A077	CAPACITOR	
C1414	EEEHB0G221P	E 220UF, 4V	
C1415	F1G1C104A077	CAPACITOR	
C1417	ECJ1VF1A225Z	CAPACITOR	
C1419	F1G1H1020008	CAPACITOR	
C1421	F1G1C104A077	CAPACITOR	
C1426	F1G1C104A077	CAPACITOR	
C1427	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1428	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1429	ECJ1VF1A225Z	CAPACITOR	
C1431	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1432	F1G1C104A077	CAPACITOR	
C1433	F1G1C104A077	CAPACITOR	
C1434	F1G1C104A077	CAPACITOR	
C1435	ECJ0EB1H471K	CAPACITOR	
C1436	ECJ1VF1A225Z	CAPACITOR	
C1437	ECJ1VF1A225Z	CAPACITOR	
C1438	F1G1H1020008	CAPACITOR	
C1439	F1G1H1020008	CAPACITOR	
C1443	ECJ1VF1A225Z	CAPACITOR	
C1444	F1G1C104A077	CAPACITOR	
C1445	F1G1H1020008	CAPACITOR	
C1446	ECJ1VF1A225Z	CAPACITOR	
C1447	F1G1C104A077	CAPACITOR	
C1448	F1G1C104A077	CAPACITOR	
C1449	F1G1C104A077	CAPACITOR	
C1450	F1G1C104A077	CAPACITOR	
C1451	F1G1C104A077	CAPACITOR	
C1452	F1G1C104A077	CAPACITOR	
C1453	F1G1C104A077	CAPACITOR	
C1454	F1G1C104A077	CAPACITOR	
C1455	F1G1C104A077	CAPACITOR	
C1456	F1G1C104A077	CAPACITOR	
C1457	F1G1C104A077	CAPACITOR	
C1458	F1G1C104A077	CAPACITOR	
C1459	F1G1C104A077	CAPACITOR	
C1460	F1G1C104A077	CAPACITOR	
C1461	F1G1C104A077	CAPACITOR	
C1462	F1G1C104A077	CAPACITOR	
C1463	F1G1C104A077	CAPACITOR	
C1464	F1G1C104A077	CAPACITOR	
C1465	F2G0J4700010	CAPACITOR	
C1466	F1G1C104A077	CAPACITOR	
C1467	F2G0J4700010	CAPACITOR	
C1468	F1G1C104A077	CAPACITOR	
C1469	F1G1C104A077	CAPACITOR	
C1470	F1G1C104A077	CAPACITOR	
C1471	F1G1C104A077	CAPACITOR	
C1472	F1G1C104A077	CAPACITOR	
C1473	F1G1C104A077	CAPACITOR	
C1474	F1G1C104A077	CAPACITOR	
C1475	F1G1C104A077	CAPACITOR	
C1476	F1G1C104A077	CAPACITOR	
C1477	F1G1C104A077	CAPACITOR	
C1478	F1G1C104A077	CAPACITOR	
C1479	F1G1C104A077	CAPACITOR	
C1480	F1G1C104A077	CAPACITOR	
C1481	F1G1C104A077	CAPACITOR	
C1482	F1G1C104A077	CAPACITOR	
C1483	F1G1C104A077	CAPACITOR	
C1484	F1G1C104A077	CAPACITOR	
C1485	F1G1C104A077	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1486	F1G1C104A077	CAPACITOR	
C1488	F1H1C105A008	CAPACITOR	
C1489	F1H1C105A008	CAPACITOR	
C1490	F1H1C105A008	CAPACITOR	
C1493	F1G1C104A077	CAPACITOR	
C1494	F1G1C104A077	CAPACITOR	
C1495	F1G1C104A077	CAPACITOR	
C1496	F1G1C104A077	CAPACITOR	
C1497	F1G1C104A077	CAPACITOR	
C1498	F1G1C104A077	CAPACITOR	
C1500	F1G1C104A077	CAPACITOR	
C1503	F1H1C105A008	CAPACITOR	
C1504	F1G1C104A077	CAPACITOR	
C1505	F1G1C104A077	CAPACITOR	
C1506	F1G1C104A077	CAPACITOR	
C1507	F1G1C104A077	CAPACITOR	
C1508	F1G1C104A077	CAPACITOR	
C1509	F1G1C104A077	CAPACITOR	
C1510	F1G1C104A077	CAPACITOR	
C1511	F1G1C104A077	CAPACITOR	
C1512	F1G1C104A077	CAPACITOR	
C1513	F1G1C104A077	CAPACITOR	
C1514	F1G1C104A077	CAPACITOR	
C1515	F1H1C105A008	CAPACITOR	
C1516	F1H1C105A008	CAPACITOR	
C1517	F1H1C105A008	CAPACITOR	
C1518	F1H1C105A008	CAPACITOR	
C1519	F1H1C105A008	CAPACITOR	
C1520	F1H1C105A008	CAPACITOR	
C1521	F1H1C105A008	CAPACITOR	
C1522	F1H1C105A008	CAPACITOR	
C1523	F1H1C105A008	CAPACITOR	
C1524	F1H1C105A008	CAPACITOR	
C1525	F1H1C105A008	CAPACITOR	
C1526	F1H1C105A008	CAPACITOR	
C1527	F1H1C105A008	CAPACITOR	
C1528	F1H1C105A008	CAPACITOR	
C1529	F1H1C105A008	CAPACITOR	
C1530	F1H1C105A008	CAPACITOR	
C1531	F1H1C105A008	CAPACITOR	
C1532	F1H1C105A008	CAPACITOR	
C1533	F1H1C105A008	CAPACITOR	
C1534	ECJ0EB1H471K	CAPACITOR	
C1535	F1H1C105A008	CAPACITOR	
C1536	F1H1C105A008	CAPACITOR	
C1537	F1H1C105A008	CAPACITOR	
C1538	F1H1C105A008	CAPACITOR	
C1539	F1H1C105A008	CAPACITOR	
C1540	F1H1C105A008	CAPACITOR	
C1541	F1G1C104A077	CAPACITOR	
C1542	F1G1C104A077	CAPACITOR	
C1543	F1G1C104A077	CAPACITOR	
C1544	F1G1C104A077	CAPACITOR	
C1545	F1G1C104A077	CAPACITOR	
C1546	F1G1C104A077	CAPACITOR	
C1547	F1G1C104A077	CAPACITOR	
C1548	F1G1C104A077	CAPACITOR	
C1549	F1G1C104A077	CAPACITOR	
C1550	F1G1C104A077	CAPACITOR	
C1551	F1G1C104A077	CAPACITOR	
C1552	F1G1C104A077	CAPACITOR	
C1553	F1G1C104A077	CAPACITOR	
C1554	F1G1C104A077	CAPACITOR	
C1555	F1G1C104A077	CAPACITOR	
C1556	F1G1C104A077	CAPACITOR	
C1557	F2G0J3300014	CAPACITOR	
C1558	F1G1C104A077	CAPACITOR	
C1559	F1G1H1020008	CAPACITOR	
C1560	ECJ2FF1A106Z	C 10UF, 10V	
C1561	F1G1H1020008	CAPACITOR	
C1562	ECJ2FF1A106Z	C 10UF, 10V	
C1563	F1G1C104A077	CAPACITOR	
C1564	F1G1C104A077	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1565	F1G1C1030008	CAPACITOR	
C1567	F1H1C105A008	CAPACITOR	
C1568	F1H1C105A008	CAPACITOR	
C1569	F1H1C105A008	CAPACITOR	
C1570	F1H1C105A008	CAPACITOR	
C1571	F1H1C105A008	CAPACITOR	
C1572	F1H1C105A008	CAPACITOR	
C1573	F1H1C105A008	CAPACITOR	
C1574	F1H1C105A008	CAPACITOR	
C1575	F1H1C105A008	CAPACITOR	
C1576	F1H1C105A008	CAPACITOR	
C1577	F1H1C105A008	CAPACITOR	
C1578	F1H1C105A008	CAPACITOR	
C1579	F1H1C105A008	CAPACITOR	
C1580	F1G1C104A077	CAPACITOR	
C1581	F1G1C104A077	CAPACITOR	
C1582	F1G1C104A077	CAPACITOR	
C1583	F1G1C104A077	CAPACITOR	
C1584	F1G1C104A077	CAPACITOR	
C1585	F1G1C104A077	CAPACITOR	
C1586	F1G1C104A077	CAPACITOR	
C1587	F1G1C104A077	CAPACITOR	
C1588	F1G1C104A077	CAPACITOR	
C1589	F1G1C104A077	CAPACITOR	
C1590	F1G1C104A077	CAPACITOR	
C1591	F1G1C104A077	CAPACITOR	
C1592	F1G1C104A077	CAPACITOR	
C1593	F1G1C104A077	CAPACITOR	
C1594	F1G1C104A077	CAPACITOR	
C1595	F1G1C104A077	CAPACITOR	
C1596	F1G1C104A077	CAPACITOR	
C1597	F1G1C104A077	CAPACITOR	
C1598	F1G1C104A077	CAPACITOR	
C1599	F1G1C104A077	CAPACITOR	
C1600	F1G1C104A077	CAPACITOR	
C1601	F1G1C104A077	CAPACITOR	
C1602	F1G1C104A077	CAPACITOR	
C1603	F1G1C104A077	CAPACITOR	
C1604	F1G1C104A077	CAPACITOR	
C1605	F1G1C104A077	CAPACITOR	
C1606	F1G1C104A077	CAPACITOR	
C1607	F1G1C104A077	CAPACITOR	
C1608	F1G1C104A077	CAPACITOR	
C1609	F1G1C104A077	CAPACITOR	
C1610	F1G1C104A077	CAPACITOR	
C1611	F1G1C104A077	CAPACITOR	
C1612	F1G1C104A077	CAPACITOR	
C1613	F1G1C104A077	CAPACITOR	
C1614	ECJ0EC1H180J	CAPACITOR	
C1615	ECJ0EC1H180J	CAPACITOR	
C1616	F1G1C104A077	CAPACITOR	
C1617	F1G1C104A077	CAPACITOR	
C1618	F1G1C104A077	CAPACITOR	
C1619	F1G1C104A077	CAPACITOR	
C1620	F1G1C104A077	CAPACITOR	
C1621	F1G1C104A077	CAPACITOR	
C1622	F1G1C104A077	CAPACITOR	
C1623	F1G1C104A077	CAPACITOR	
C1624	F1G1C104A077	CAPACITOR	
C1625	F1G1C104A077	CAPACITOR	
C1626	F1G1C104A077	CAPACITOR	
C1627	F1G1C104A077	CAPACITOR	
C1628	F1G1C104A077	CAPACITOR	
C1629	F1G1C104A077	CAPACITOR	
C1630	F1G1C104A077	CAPACITOR	
C1631	F1G1C104A077	CAPACITOR	
C1632	F1G1C104A077	CAPACITOR	
C1633	F1G1C104A077	CAPACITOR	
C1634	F1G1C104A077	CAPACITOR	
C1635	F1G1C104A077	CAPACITOR	
C1636	F1G1C104A077	CAPACITOR	
C1637	F1G1C104A077	CAPACITOR	
C1638	F1G1C104A077	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1639	F1G1C104A077	CAPACITOR	
C1640	F1G1C104A077	CAPACITOR	
C1641	F1G1C104A077	CAPACITOR	
C1642	F1G1C104A077	CAPACITOR	
C1643	ECJ2FF1A106Z	C 10UF, 10V	
C1644	ECJ2FF1A106Z	C 10UF, 10V	
C1645	F1G1C104A077	CAPACITOR	
C1646	F1G1C104A077	CAPACITOR	
C1647	F1G1H1020008	CAPACITOR	
C1648	ECJ2FF1A106Z	C 10UF, 10V	
C1650	F1G1E6820007	CAPACITOR	
C1651	F1G1C104A077	CAPACITOR	
C1652	ECJ1VF1A225Z	CAPACITOR	
C1653	EEEHB0G101R	E 100UF, 4V	
C1654	EEEHB0G101R	E 100UF, 4V	
C1655	ECJ1VF1A225Z	CAPACITOR	
C1656	F1G1C104A077	CAPACITOR	
C1657	F1G1H1020008	CAPACITOR	
C1658	F1G1C104A077	CAPACITOR	
C1659	F1J1A106A024	CAPACITOR	
C1660	F1J1A106A024	CAPACITOR	
C1661	F1J1A106A024	CAPACITOR	
C1662	F1J1A106A024	CAPACITOR	
C1663	F1J1C106A059	CAPACITOR	
C1664	F1G1C104A077	CAPACITOR	
C1665	F1G1C104A077	CAPACITOR	
C1666	F1G1E6820007	CAPACITOR	
C1669	ECJ2FF1A106Z	C 10UF, 10V	
C1670	ECJ2FF1A106Z	C 10UF, 10V	
C1671	F1G1C104A077	CAPACITOR	
C1672	F1G1C104A077	CAPACITOR	
C1678	F1G1C104A077	CAPACITOR	
C1679	F1G1C104A077	CAPACITOR	
C1680	F1G1C104A077	CAPACITOR	
C1681	F1G1C104A077	CAPACITOR	
C1682	F1G1C104A077	CAPACITOR	
C1683	F1G1C104A077	CAPACITOR	
C1684	F1G1C104A077	CAPACITOR	
C1685	F1G1C104A077	CAPACITOR	
C1686	F1G1C104A077	CAPACITOR	
C1687	F1G1C104A077	CAPACITOR	
C1690	F1G1C104A077	CAPACITOR	
C1695	F1J1A106A024	CAPACITOR	
C1697	F1J1A106A024	CAPACITOR	
C1706	ECJ0EC1H100D	CAPACITOR	
C1714	ECJ0EC1H560J	CAPACITOR	
C1715	ECJ0EC1H150J	CAPACITOR	
C1717	ECJ0EC1H560J	CAPACITOR	
C1718	ECJ0EC1H150J	CAPACITOR	
C1721	EEFCX0D221R	CAPACITOR	
C1722	F1G1H1020008	CAPACITOR	
C2022	F1G1C104A077	CAPACITOR	
C2024	F1G1C104A077	CAPACITOR	
C2025	ECJ2FF1A106Z	C 10UF, 10V	
C2026	ECJ2FF1A106Z	C 10UF, 10V	
C9101	ECQU2A104MLA	CAPACITOR	⚠
C9102	F1BAH1020019	CAPACITOR	⚠
C9103	F1BAH1020019	CAPACITOR	⚠
C9201	ECQU2A473MLA	CAPACITOR	⚠
C9603	F0CZZ4740003	CAPACITOR	(B-PCB)
C9610	F0C2E1050008	CAPACITOR	(B-PCB)
C9617	F0C3C4720003	CAPACITOR	
C9618	F0C2J1540007	CAPACITOR	(B-PCB)
C9619	F0C2J1540007	CAPACITOR	(B-PCB)
[OTHERS]			
A1	K1MY84BA0200	36P CONNECTOR	
A2	K1MY84BA0200	36P CONNECTOR	
A3	K1MY84BA0200	36P CONNECTOR	
A4	K1KA05B00219	5P CONNECTOR	
A6	K1KA15BA0051	15P CONNECTOR	
A7	K1KA02B00294	2P CONNECTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
A8	K1KA06B00220	2P CONNECTOR	
A9	K1KA09B00112	3P CONNECTOR	
A10	K1KA03BA0086	3P CONNECTOR	
A11	K1KA02B00294	2P CONNECTOR	
A12	K1KA10BA0087	3P CONNECTOR	
A14	K1KA02B00294	2P CONNECTOR	
A15	K1KA03B00242	3P CONNECTOR	
A16	K1KA03BA0047	3P CONNECTOR	
A17	K1KA03BA0047	3P CONNECTOR	
A18	K1KA03BA0047	3P CONNECTOR	
A23	K1KA08B00270	3P CONNECTOR	
H1	K1KA08A00506	CONNECTOR	
H2	K1MY06BA0007	CONNECTOR	
K5	K1KA02A00626	CONNECTOR	⚠
K6	K1KA04A00633	CONNECTOR	⚠
R1	K1KA03B00242	CONNECTOR	
V1	K1KA06B00220	CONNECTOR	
F9101-1	K3GE1ZA00010	FUSE HOLDER	
F9101-2	K3GE1ZA00010	FUSE HOLDER	
F9101	K5D502BNA005	FUSE	⚠
HE2201	B4ABA0000009	HALL DEVICE	
JK1001	K1CB205B0007	TERMINAL (S-VISEO/VIDEO-IN)	
JK1002	K2HA304B0010	TERMINAL (YPBPR1-IN)	
JK1003	K2HA304B0010	TERMINAL (YPBPR2-IN)	
JK1005	K1FB115B0102	TERMINAL (RGB1-IN) 15P	
JK1006	K1FY119E0005	TERMINAL (HDMI-IN)	
JK1007	K1FY119E0005	TERMINAL (HDMI-IN)	
JK1008	K1FY119E0005	TERMINAL (HDMI-IN)	
JK1009	K1FB109B0070	TERMINAL (RS232C I/F) 9P	
JK9101	TXAWC01VKJ8	AC INLET ASSY	⚠
JS1004	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1005	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1006	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1007	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1012	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1013	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1020	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1021	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1022	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1023	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1024	ERJ6GEY0R00	M 0 OHM,J,1/10W	
LF9101	G0B692J00001	LINE CHOKE	⚠
LF9102	G0B692J00001	LINE CHOKE	⚠
RM2001	B3RAD0000083	REMOTE RECEIVER PLATE	
S9602	A9BZ00000013	SPARKGAP(B-PCB)	
SW2001	EVQPLHA15	SWITCH	
SW2002	EVQPLHA15	SWITCH	
SW2003	EVQPLHA15	SWITCH	
SW2004	EVQPLHA15	SWITCH	
SW2005	EVQPLHA15	SWITCH	
SW2006	EVQPLHA15	SWITCH	
SW2007	EVQPLHA15	SWITCH	
SW2008	EVQPLHA15	SWITCH	
SW2009	EVQPLHA15	SWITCH	
SW2010	EVQPLHA15	SWITCH	
SW2011	EVQPLHA15	SWITCH	
SW2012	EVQPLHA15	SWITCH	
SW2013	EVQPLHA15	SWITCH	
SW9101	K0AAKA000016	SWITCH	⚠
T9604	G4FYA0000005	TRANS	⚠ (B-PCB)
X1002	H0J350500001	CRYSTAL	
X1005	H0J829400001	CRYSTAL	
X1006	H0J270500118	CRYSTAL	
ZA2031	K4CD01000011	TERMINAL	
ZA9101	K9ZZ00000424	LUG TERMINAL	
	ETX1MM745MB	CIRCUIT BOARD-P	⚠
	TXANP03VKJ8	BALLAST UNIT ASSY	⚠
	TNPA4724	CIRCUIT BOARD-M1	⚠ (TEMP SENSOR)
	TNPA4725	CIRCUIT BOARD-M2	⚠ (TEMP SENSOR)
	TNPA4812	CIRCUIT BOARD-M3	⚠ (TEMP SENSOR)
RTL	TXANP01VKJ8	CIRCUIT BOARD-A	⚠
RTL	TXANP08VKJ8	CIRCUIT BOARD-K	⚠ (K1+K3-P.C.B)
RTL	TNPA4716	CIRCUIT BOARD-K2	⚠
RTL	TNPA4720	CIRCUIT BOARD-S	⚠
RTL	TNPA4721	CIRCUIT BOARD-R	⚠
RTL	TNPA4722	CIRCUIT BOARD-H	⚠
RTL	TNPA4723	CIRCUIT BOARD-V	⚠ (LED)